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A Randomized Controlled Trial of an Online, Modular, Active Learning Training Program for Behavioral Activation Treatment for Depression

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A RANDOMIZED CONTROLLED TRIAL OF AN ONLINE, MODULAR, ACTIVE LEARNING TRAINING PROGRAM FOR BEHAVIORAL ACTIVATION TREATMENT FOR DEPRESSION

By

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ABSTRACT

A RANDOMIZED CONTROLLED TRIAL OF AN ONLINE, MODULAR, ACTIVE LEARNING TRAINING PROGRAM FOR BEHAVIORAL ACTIVATION TREATMENT FOR DEPRESSION

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Under the Supervision of Professor Shawn Cahill, Ph.D.

This randomized-controlled trial was conducted in 2013-2014 and aimed to evaluate the efficacy of an online, trainer-led Behavioral Activation (BA) training when compared to an online, self-paced BA training. Graduate students (N = 80) in Clinical Psychology, Counseling Psychology, Social Work, and Psychiatry Residency programs were recruited. Participants were randomly assigned to either the trainer-led BA training (N = 40) or the self-paced BA training (N = 40). The trainer-led BA training consisted of four 90-minute trainer-led online sessions guided by a BA trainer and training activities included didactic, modeling, practice, and feedback. The self-paced BA training consisted of four 30-minute sessions audio-guided by an undisclosed BA trainer who provided the didactic. Both training focused on four BA core skills: providing BA rationale, BA assessment, activity scheduling, and strategies targeting avoidance. Primary outcome measures were Behavioral Activation Skills Assessment (BASA) and self-report questionnaires to assess BA implementation, confidence, and satisfaction towards BA training. Mixed between-within analysis of variance (ANOVA) and t-tests using intent-to-treat analyses based on last observation carried forward were conducted to compare

changes on the outcome measures between training groups from pre- to post-training. Results indicated a significant greater increases ($F(1,75) = 5.762$, $p = .019$, partial eta squared = .071) of total BA skills for participants in the trainer-led BA training than those in self-paced training. Similar findings were found for providing BA rationale, BA assessment, and activity scheduling but not strategies targeting avoidance. Participants across groups also reported significant increases in total BA confidence although differences between groups were not significant. Increases on reported BA implementation for both groups were observed for both groups, however,even at post-training only approximately half of participants in each group reported using at least one BA strategy in clinical practice. Lastly, participants in both training groups also reported high satisfaction towards the BA training that they received. This pilot study provided evidence for the efficacy of the online trainer-led BA training on improving trainees' BA skills, implementation, and confidence. There was also evidence that the self-paced BA training was effective in improving BA skills, although improvement was not as strong as the trainer-led BA training.

To

my parents

and

my husband

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First I want to thank Jonathan Kanter for taking me as his student based on my future potential not my past achievements. Thank you for pushing me to take risks in research and clinical work. You have provided a nurturing and compassionate learning environment for me. I value each and every lesson I have learned as your student.

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Current Status of EBPIs Dissemination and Implementation

In 1995, the American Psychological Association (APA) Division 12 formed a Task Force to identify a number of evidence-based treatments (EBTs) in Psychology. EBTs can be defined as "interventions of techniques that have produced therapeutic change in controlled trials" (Kazdin, 2008). In order to differentiate between EBTs in other fields and Psychology, Mchugh and Barlow (2012) referred to EBTs in psychology as Evidence-Based Psychological Interventions (EBPIs), which will be used from here on. One of the primary goals of this Task Force was to respond to the notion on the importance of providing psychological services that are based on science. This Task Force examined existing empirical data on numerous psychological interventions and developed some criteria to identify interventions as either well-established or probably efficacious treatments.

The process resulted in the identification of 22 well-established and 25 probably efficacious treatments (Chambless & Hollon, 1998). Several examples of EBPIs for specific disorders are Cognitive Behavior Therapy for panic disorder with and without agoraphobia (David H. Barlow, Craske, Cerny, & Klosko, 1989; Clark et al., 1994), Cognitive Therapy for depression (Dobson, 1989), and Behavioral Marital Therapy for marital discord (Neil S. Jacobson & Follette, 1985). It was further acknowledged that the list might not capture all existing EBPIs and might be changeable based on on-going empirical discoveries. Currently, the APA Division 12 has posted 79 EBPIs for various psychological disorders, which is a marked increase in the last 15 years.

Significant time, financial and human resources were typically invested before a proposed psychological intervention was considered as an EBPI. More than one group of investigators have to conduct at least two randomized controlled trials (RCTs) and/or other types of clinical trials (e.g. multiple single subject design studies) to assess the efficacy and effectiveness of an intervention. In the last 30 years, the field has made considerable advancements in the development of various EBPIs, which is a marked achievement that should be highlighted.

The development of EBPIs is an initial step in establishing optimal evidence-based practice in Psychology. The next crucial step is to increase availability of EBPIs in clinical practice so people in the community who suffer from psychological disorders can receive adequate treatment. Two major processes in translating EBPIs from research to practice are dissemination and implementation. It is pertinent to clarify the definitions of these two terms, since terminology used in this specific area has been inconsistent (R. S. Beidas, Koerner, Weingardt, & Kendall, 2011).

The term dissemination research addresses the process of "how information about mental health care interventions is created, packaged, transmitted, and interpreted among various important stakeholder groups" (Chambers, Ringeisen, & Hickman, 2005). Implementation research, on the other hand, addresses "whether health interventions are sustained in regular, on-going practice and whether they are responsible for public health changes through methods such as impact evaluations" (R. Kathryn McHugh & Barlow, 2012).

The need to focus on the dissemination and implementation science of EBPIs has been widely acknowledged, yet the field is still in its infancy (Hayes, 2002; Kendall &

Beidas, 2007; R. K. McHugh & Barlow, 2010). While efficacy and effectiveness research of psychological interventions has been rapid and rigorous, the progress of dissemination and implementation research of EBPIs is slower and receives less attention. Many empirical questions in this area have not yet been explored and data on evidence-based strategies to disseminate and implement EBPIs is limited. As a result, current dissemination and implementation strategies have not yielded optimal outcomes and many of those who suffer from psychological disorders have not received the available EBPIs (Goisman, Warshaw, & Keller, 1999). This difficulty in translating research findings into clinical practice is not unique to mental health. Similar issues are found in other areas such as medicine, public health, and agriculture (Glasgow et al., 2012).

The gap between the progress made in identifying EBPIs and the actual implementation of these treatments in the community is staggering. In fact, the United States Surgeon General (2000) reported that the majority of people with psychological disorders did not receive adequate EBPIs (Satcher, 2000). Others found that only 20% of people who were referred for psychotherapy received adequate treatments (Marcus & Olfson, 2010). This data is discouraging and should prompt significant public attention. Research needs to be conducted to understand various aspects of the dissemination and implementation process, such as barriers to treatment, efficacious strategies of dissemination and necessary factors to sustain implementation.

Overall, improved access to mental health services for all psychological and psychiatric conditions are still needed. In particular, more attention has been given towards improving access to treatment for mood disorder due to the high prevalence and debilitating impacts of this condition. Mood disorders are the most diagnosed

psychological disorders with a rapid in cases diagnosed since the 1990s (Kessler, Merikangas, & Wang, 2007). Among mood disorders, MDD has been identified as the number three most burdensome disease in the world and predicted to be the number one most burdensome disease in the world across cultures, nationalities, and socio-economic status (Whiteford & Ferrari, 2013).

Mental health research has successfully developed both psychological and pharmacological interventions that are efficacious to treat MDD (Goldman, Nielsen, & Champion, 1999). While progress in identifying treatments for MDD has been successful, the dissemination and implementation of EBPIs for MDD is not yet optimal. In the United States alone, approximately 65% of adults with MDD did not receive efficacious treatment (Gonzalez et al., 2010). This figure is consistent with findings from large-scale epidemiological studies (Kessler et al., 2007). Another study found that the majority of Medicaid-enrolled adults with MDD did not receive adequate evidence-based pharmacotherapy and psychotherapy (Teh et al., 2010). The same study discovered that ethnic minorities, particularly blacks, were at higher risk for receiving inadequate treatment for MDD. When people who suffer from MDD are untreated or undertreated, it has been documented that the financial costs and daily burden due to limited functioning remains devastatingly high (Greenberg et al., 2003).

Although the rate of outpatient treatment for MDD increased from 2.37 per 100 persons in 1998 to 2.88 per 100 persons in 2007, it was mainly due to the higher use of pharmacotherapy in clinical practice (Marcus & Olfson, 2010). People with MDD who received antidepressants increased from 73.8% in 1998 to 75.3% in 2007. The rate of people who received evidence-based psychotherapy for MDD, however, decreased 10%

from 53.6% in 1998 to 43.1% in 2007. Surprisingly, it was discovered in this study that this was contrary to the fact that the majority of people with MDD preferred to receive psychotherapy over medication.

Barriers to receiving EBPIs for MDD and other psychological disorders occur at the client, provider, and organizational level. Several common barriers experienced by people with psychological disorders include stigma, patient somatization and denial (Goldman et al., 1999). At the provider level, barriers include attitudes towards EBPIs, hesitancy to adopt new EBPIs and implement the treatments in clinical practice, and limited knowledge and skills to utilize such treatments (R. Kathryn McHugh & Barlow, 2012). Other barriers occur at the organization level that influence the likelihood of implementation of EBPIs in clinical practice. Some of these systemic barriers include limited third-party coverage and organizational atmosphere that does not support the implementation of EBPIs.

Barriers at different levels may require specific interventions involving researchers and professionals from various fields. For instance, psychoeducation may be beneficial to increase the clients' knowledge of the types of EBPIs available. Clients may be informed to advocate for themselves and request appropriate treatments to cope with psychological disorders. Many from the public health field, for instance, should be consulted as they may already have effective models to promote novel health services or interventions. On the bigger scope, changes in health care policy to make EBPIs the recommended treatments for third-party coverage may be another option. This type of strategy requires an active involvement of the government and policy makers.

There are also significant emerging ideas highlighting the importance of evaluating dissemination and implementation strategies at the provider level for several reasons. First, mental health providers as a unit are directly responsible for delivering EBPIs to the clients. Second, while changing the overall health care policy may be out of Clinical Psychology's scope, preparing future mental health providers that are competent in providing psychological treatments is one of the main focuses of this field. Thus, several researchers who are pioneers in the development of EBPIs started to expand their focus to also examine strategies to better train current and future mental health providers in delivering EBPIs competently.

Strategies for EBPI Dissemination

A number of strategies to introduce EBPIs in the community have been utilized, although data on the efficacy, effectiveness, and efficiency of such strategies is still limited. Three commonly used strategies of EBPI dissemination are publication of treatment manuals, formal training and supervision in pre- and post-doctoral programs, and continuing education training for currently practicing mental health providers in the community. The benefits and limitations for each strategy will be further discussed in this section.

Treatment Manuals. Treatment manuals are important in both clinical trials and the dissemination process. In conducting clinical research, for instance, a treatment manual may increase consistency and fidelity between research therapists in providing the evaluated psychological intervention. Once a treatment gains empirical support, the publication of a treatment manual can introduce this novel EBPI to the community. In fact, the APA highly recommended investigators of EBPIs to immediately publish the

treatment manuals once enough evidence to support the treatments are established (Chambless & Hollon, 1998).

Treatment manuals are relatively cheap and can be readily distributed to mental health providers. Some EBPI investigators even made their treatment manuals free and accessible for the general public (Lejuez, Hopko, & Hopko, 2001). In terms of time efficiency, it is hoped that mental health providers will continue to independently keep themselves informed with newly identified EBPIs, learn the skills, and implement the treatments in their clinical practice. Although this idea of a time-efficient and cost-effective dissemination strategy using treatment manuals is appealing, several challenges related to solely relying on this strategy should be highlighted.

Data on mental health providers' attitudes and self-reported utilization of treatment manuals varies. A nationwide survey of 891 practicing psychologists was conducted to assess their attitudes toward and ideas about the content of treatment manuals (M. E. Addis & Krasnow, 2000). The study found that 75% of providers had heard about treatment manuals but less than 50% reported having a reasonable clear idea of what manuals are. It also seemed that the majority of providers had conceptualized treatment manuals differently (e.g., "a cookbook" or "a treatment protocol imposed by a third-party payer") than how they have been conceptualized by the EBPI investigators. The study revealed that providers' attitudes towards treatment manuals varied from positive (34%) to negative (21%) to neutral (45%). Lastly, 47% of respondents reported that they never used treatment manuals in their clinical practice and as low as 6% of the sample reported regular use of treatment manuals. This study indicated that the utilization

of treatment manuals is still limited and might be due to providers' lack of awareness of treatment manuals and misunderstanding of their purposes.

Current data, although preliminary, suggested that treatment manuals may not be an adequate dissemination strategy for EBPIs. The results from a systematic review of five training studies indicated that EBPI treatment manuals may be effective in increasing providers' knowledge but not their skill to competently provide the treatments (Herschell, Kolko, Baumann, & Davis, 2010). Furthermore, the increase in knowledge was short-lived and significantly smaller than that of providers who participated in more intensive trainings. The authors concluded that treatment manuals may be sufficient to introduce providers to EBPIs but inadequate when the goal is to increase competence.

EBPIs Dissemination in Graduate Programs. The inclusion of formal EBPI training in graduate programs in mental health is considered a more active approach to dissemination compared to treatment manuals. Some have argued that for optimal dissemination, EBPIs should be introduced as early as possible in the training sequence (Weissman et al., 2006). The graduate program setting can be an ideal initial point of EBPI dissemination because the majority of graduate programs already consist of didactic training in classrooms, practicum experiences, and supervision, which as a training sequence is considered the "gold standard" (Sholomskas et al., 2005). Thus, the introduction of EBPIs as early as possible in graduate training is recommended.

This approach is, however, not without its own challenges and barriers to effective dissemination. A cross-sectional survey of 221 programs in psychiatry, psychology, and social work in the United States showed that many programs offered elective training in EBPIs but only a small percentage made this training as a requirement

(Weissman et al., 2006). Psychiatry programs offered the most required training in EBPIs (28.1%). This was most likely due to their current cognitive behavior therapy (CBT) training requirement, which resulted in more than 90% of the psychiatry programs offering CBT training. Professional clinical psychology (PsyD) and social work programs reported the largest number of students and yet 67.3% of PsyD programs and 61.7% of social work programs reported that they did not offer any required didactic and clinical supervision in EBPIs.

Regarding pre-doctoral training in clinical psychology, the APA recommended that most, if not all, EBPIs should be introduce at least through didactic training (Chambless & Hollon, 1998), although it was acknowledged that further practicum and supervision in all EBPIs is almost impossible. APA further raised a concern that many programs provided inadequate training in EBPIs. A survey of directors of clinical training in psychology programs found that EBPIs were introduced in didactic courses in 46% of programs and in practicum courses in 44%. When programs offered training in EBPIs, mostly only taught a small percentage of identified treatments.

Over 20% of programs did not provide any didactic or practicum training of over 75% of EBPIs. These results were replicated 10 years later that found an improvement in the amount of didactic training provided by APA-accredited programs (Woody, Weisz, & McLean, 2005). Supervision in EBPIs was, however, declining. Supervision increased for only four EBPIs: behavior therapy for depression, stress inoculation training for coping with stressors, interpersonal therapy for depression, and emotion focused couple therapy. Thus, data indicated that there was a slow progression of EBPI dissemination even in

formal graduate training in clinical psychology and most programs do not provide thorough coverage of the majority of identified EBPIs.

Compared to other graduate programs in mental health, the majority of psychiatry residency programs offer a relatively more intensive training in several EBPIs. Several years ago, an increase in preference for medication over psychotherapy in psychiatry practices was noticed (Wilk, West, Rae, & Regier, 2006). The majority of patients with psychological disorders did not receive any form of identified EBPIs (Mussell et al., 2000; Rowa, Antony, Brar, Summerfeldt, & Swinson, 2000; Wang, Berglund, & Kessler, 2000), which raised some concern among the proponents of psychotherapy in psychiatry(Sudak, 2009). As a response to this phenomenon, the Accreditation Council for Graduate Medical Education (ACGME) then required psychiatry residency programs to offer trainings in five types of psychotherapy: CBT, brief psychotherapy, supportive therapy, psychodynamic psychotherapy, and combining medication and psychotherapy.

A challenge that has been raised by psychiatrists and psychiatry residency programs was inadequate training in a number of EBPIs. For instance, Sudak and Goldberg (2012) found that although CBT training has greatly increased since 2001 in psychiatry residency programs, the required clinical supervision in CBT remains less compared to psychodynamic training. Over 20% of psychiatry residents reported that EBPI training in their programs was underemphasized (Hadjipavlou & Ogrodniczuk, 2007). Moreover, 25% of the residents reported that the specific EBPI training that they would like to receive was not offered in their programs. Thus, further improvement of EBPI training in psychiatry residency programs is needed and seeking additional training from outside of the institution may be beneficial (Sudak & Goldberg, 2012).

The importance of disseminating and implementing EBPIs in other disciplines related to mental health services has also been acknowledged and stressed. For instance, the New York Office of Mental Health Evidence Based Project was involved in designing a curriculum for social work students to take didactic and practicum training in EBPIs (Stanhope, Tuchman, & Sinclair, 2011). Others provided recommendations on improving EBPI training in social work graduate programs such as establishing a committee responsible for tracking and implementing demonstrably effective instructional innovation related to evidence-based practice, providing continuing education courses on EBPIs for faculty supervisors and students, and developing assessments to assess students' competency prior to graduation (Howard, Allen-Meares, & Ruffolo, 2007).

Based on the existing literature, there are two common barriers to EBPI dissemination in formal graduate training across these disciplines. First, a limited number of faculty who have adequate knowledge and skills to teach specific EBPIs was often reported (Stanhope et al., 2011; Sudak & Goldberg, 2012; Woody et al., 2005). Second, lack of time is reported as a significant barrier by directors of clinical training in clinical psychology programs (Woody et al., 2005) and 20% of psychiatry training directors (Weissman et al., 2006).

One proposed solution to the lack of faculty competency in EBPIs is providing additional training for faculty and/or students through continuing education (CE) trainings (Howard et al., 2007). Sudak and Goldberg (2012) further suggested utilizing distance learning either to receive didactic training, supervision, or both when geographical location and limited time become barriers.

Continuing Education Trainings. CE training is potentially one of the most crucial dissemination strategies to introduce EBPIs to currently practicing mental health providers (R. Kathryn McHugh & Barlow, 2012). Several national organizations, such as the American Psychological Association, Association of Social Work Boards, and National Board for Certified Counselors, oversee different disciplines that provide mental health services and require providers to continually maintain and update their knowledge and skills. Mental health providers are required to take a certain amount of CE credits each year in order to maintain their licensure. Numerous accredited CE courses are available in different formats, such as half- or full-day direct trainings, independent study using books, DVDs, or other computerized programs, and live distance learning using interactive chat rooms (e.g., Skype) or via the telephone.

There are, however, several challenges and limitations of existing CE trainings that need to be further addressed. First, they can be costly. Significant investments have been allocated for CE trainings in the United States and around the world, in terms of time, financial, and human resources. For instance, the cost of CE trainings can range from US$60 for an independent, book-based, CE training to US$1200 for a three-day in-person certified EBPI training.

Second, research on this particular topic is still in its early stages and improvements in research methodologies are necessary. In a systematic review of 34 trials that reported therapist competence, only seven trials had a primary aim to assess the outcome of CBT training (Rakovshik & McManus, 2010). The rest of the studies were either efficacy or effectiveness trials to evaluate the outcome of CBT as a treatment for different psychological disorders, where secondary data analysis on training research

therapists was also collected. Thus, the need for more clinical trials to specifically assess the outcome of trainings and evaluate specific training strategies that may be responsible for increased knowledge and skills is warranted (R. K. McHugh & Barlow, 2010).

In another current systematic review (Herschell et al., 2010), 55 psychotherapy training studies were categorized into six classification criteria. Those considered Type 1 studies encompassed the most rigorous research methodology (e.g. random and blind assessments, clear inclusion and exclusion criteria, sufficient sample size and power, and rigorous outcome measures), while Type 6 studies included the least rigorous methodology such as case studies, essays, and opinion papers. Only 11% of the evaluated training studies were considered Type 1 studies. The majority of training studies were considered Type 2 studies (35%) or Type 3 studies (53%). Type 2 studies were clinical trials that did not include some aspects of Type 1 criteria and Type 3 studies included uncontrolled, open trials with pre-post designs. While we have made progress in identifying EBPIs, more programmatic research with rigorous methodology is still very much needed on EBPI training (Boswell & Castonguay, 2007).

In terms of limitations in research methodology, inadequate training outcome measurement is another challenge that requires more attention (Alberts & Edelstein, 1990). Previous psychotherapy training studies tend to rely heavily on measuring outcomes based on trainees' knowledge and self-reported competency, adherence and satisfaction (Becker & Stirman, 2011). While these types of outcome measures can be collected relatively quickly and do not require clinical data from clients, limited data show a relationship between self-reported measures and clinical outcomes or actual therapist competency in providing treatment.

In a review of different outcome measures used in psychotherapy training studies, no study evaluated the relationship between increases in knowledge and clinical outcomes or therapist competence (Decker, Jameson, & Naugle, 2011). Another study found that when therapists were asked to report their adherence, they consistently overestimated the amount of time they spent in delivering the examined EBPI (Carroll, Martino, & Rounsaville, 2010). Therefore, more reliable and valid strategies to measure training outcomes are needed to improve research in this particular area.

Based on existing CE training studies, data on the efficacy and effectiveness of psychotherapy training is somewhat discouraging. Evaluations of CE trainings in health care consistently found that the typical several days of in-person workshops involving mostly didactic learning strategies were not effective in changing trainees' skills (D. Davis et al., 1999; D. A. Davis, Thomson, Oxman, & Haynes, 1995; Grimshaw et al., 2001; VandeCreek, Knapp, & Brace, 1990). Similarly, outcomes of previous psychotherapy workshops indicated that this approach was not adequate at increasing trainees' competence and changing their behaviors in actual clinical practice (Stein & Lambert, 1995; Vakoch & Strupp, 2000). A systematic review of CE trainings that utilized different strategies (e.g., workshop, manual, and supervision) found that the typical psychotherapy trainings were only effective in increasing knowledge but not adherence, competence, and skills (R. S. Beidas & Kendall, 2010). When an increase in competence was achieved, the impact of training was short-lived and only within the training period (Bein et al., 2000; Henry, Strupp, Butler, Schacht, & Binder, 1993).

Herschell and colleagues (2010) reviewed multiple psychotherapy training studies and summarized the effect of different training modalities. The results showed that self-

directed trainings were favorable and cost-effective. However, when more rigorous evaluation strategies were used, self-directed trainings were inadequate in increasing therapeutic skills. Consistent with previous findings, traditional workshops that mostly utilized didactic training were only effective in increasing knowledge but not competence. Effective psychotherapy trainings that resulted in behavioral change usually occurred when several training strategies, such as feedback, practice, and supervision, were implemented.

Recommendations for Research on EBPI Training

Several recommendations have been proposed in the literature for research on EBPI training as a dissemination tool. Some of the recommendations are related to improving dissemination and implementation science while others were specifically made to improve EBPI training content, strategies, and delivery modalities.

Recommended Improvements in Research Methodology. Many empirical questions related to EBPI dissemination remain unexplored. While we already have a list of EBPIs, we do not yet fully know the necessary evidence-based dissemination strategies that will effectively diffuse these treatments into clinical practice. Specifically on EBPI training, it is pertinent to collect more data on evidence-based training strategies. In terms of treatments, an important empirical question that requires rigorous research agenda is “what works for whom?” Ideally, advancements in research on EBPI training should also aim to answer a similar question “what training strategies work for whom?”

Based on the existing literature on EBPI training, several factors should be taken into consideration when designing a research study in this area. While less rigorous

studies (e.g., retrospective data collection) certainly are valuable, a more rigorous research methodology is often required to answer certain types of empirical questions. For instance, in order to evaluate the efficacy of a novel training strategy, randomization to comparison conditions is necessary. At other times, however, randomized-controlled trials may not be the appropriate research methodology considering the complexity of the setting where dissemination research is taken place. Unlike efficacy trials of psychotherapy that were often conducted inside a controlled clinical laboratory, training studies are most likely conducted in a community setting with various uncontrollable external factors. Thus, dissemination and implementation researchers should consider diverse methodologies, including research methods from other disciplines (R. S. Beidas et al., 2011).

Herschell and colleagues (2010) proposed several other recommendations that may be necessary to improve dissemination research. First, in order to answer a more specific type of research question, a large sample size is often necessary to achieve sufficient power. Second, having clear inclusion and exclusion criteria will help researchers and readers to better interpret the internal and external validity of the results. Lastly, they stressed the importance of clearly stating statistical methodology used to analyze research findings.

One significant area of improvement in EBPI training research is in developing diverse outcome measures with adequate reliability and validity. In training studies, proximal and distal outcomes are typically the two indicators used to measure training success (McHugh & Barlow, 2012, pg. 52). Several variables that that have been assessed to measure proximal outcomes include providers' attitudes, knowledge, adherence, self-

reported competence and implementation and simulated skills assessed using a role play format and delivered to a hypothetical client. Other variables assessed to measure distal outcomes include providers' competence and adherence in actual clinical settings, clients' satisfaction and symptom change.

Since the eventual aim of dissemination and implementation science is to examine the efficacy and effectiveness of EBPIs in alleviating symptoms and/or improve clients' well-being, distal outcomes are the most important variables to measure in psychotherapy training studies. Ideally, both mental health providers and their clients are recruited in a training study. Evaluation of training success can then be based on clients' outcome data (e.g., changes in symptoms and well-being) and providers' outcome data (e.g., changes in competence) pre- and post training.

Several factors, however, can be barriers to the collection of data from clients. For instance, a training study that recruits providers from different locations may require approvals from Institutional Review Boards in each institution where the providers are practicing. While this protocol is not impossible to follow, it can be impractical and significantly delay data collection. The transmission of clients' data from the providers to the investigators may also be a threat in assuring confidentiality. Potential issues that may occur in the process are having therapy recordings get lost in the mail or clients' data leaked in the internet. This may be one of the most commonly occurring reasons why psychotherapy training studies mostly rely on proximal outcomes.

As previously mentioned, the majority of training studies relied on measuring changes in providers' attitude, knowledge, and self-reported competence and implementation of EBPIs. However, there is a lack of data supporting the validity of this

assessment strategy in approximating providers' actual competency. Some authors have suggested the need to develop proximal outcome measures that focuses more on assessing providers' behavioral change or EBPI skills (Fairburn & Cooper, 2011).

There is an emerging interest among more current training researchers to use simulated therapy sessions to measure providers' competence in EBPIs. In this assessment format, providers typically interact with a hypothetical client who follows a scripted scenario. Providers are then prompted to use the targeted EBPI strategies. Competency is typically rated using an established measure for that specific EBPI. Role play assessments have been used in studies examining the outcome of CBT training for child anxiety (Rinad S. Beidas, Barmish, & Kendall, 2009), Dialectical Behavior Therapy (DBT) for borderline personality disorder (Dimeff et al., 2009), general CBT training (Sholomskas et al., 2005), and suicide prevention training (Cross, Matthieu, Cerel, & Knox, 2007).

Proximal competency assessment using a role play format is desirable for several reasons. First, it allows researchers to measure trainees' skills without having to collect the recordings of actual therapy sessions. Thus, a threat to clients' confidentiality can be eliminated. Second, specific EBPI skills can be directly prompted by the assessor during a role play assessment. For instance, in a study by Sholomskas and colleagues (2005), trainees were directly instructed to implement three key CBT strategies. This process is not controllable when assessing therapist competency in actual clinical settings, which may require coding multiple psychotherapy sessions to capture all of the targeted skills. Research to assess the reliability and internal and external validity of role play assessments is, however, still limited. Considering the strengths and limitations for both

distal and proximal outcome measures, it was recommended that investigators utilize both types of measures (R. Kathryn McHugh & Barlow, 2012), while also working towards achieving enough evidence on the validity and reliability of each measure (Fairburn & Cooper, 2011).

Recommended Improvements to EBPI Training. As previously discussed, existing empirical data suggest that the typical psychotherapy trainings may not be effective in improving providers' therapeutic skills. Thus, several recommendations have been proposed regarding the learning strategies, content, and delivery modality of EBPI trainings. Consistently proposed recommendations include: 1) incorporation of active learning strategies, 2) simplification of training content that focuses mainly on skill building, 3) utilization of technology in delivering training content.

Research suggested that passive learning had limited effects on behavioral change (El-Tannir, 2002; Fauth, Gates, Vinca, Boles, & Hayes, 2007), yet the typical psychotherapy training often consisted of mainly this approach with less involvement from the trainees. Several authors have proposed that active learning is a necessary component to improve both knowledge and skills to implement EBPIs (R. S. Beidas & Kendall, 2010; R. Kathryn McHugh & Barlow, 2012), which typically include five essential steps: didactic training, modeling, practice, feedback, and supervision (Manring, Greenberg, Gregory, & Gallinger, 2011).

Didactic training, whether through written materials (Ducharme & Feldman, 1992; Rubel, Sobell, & Miller, 2000) or workshops (Saitz, Sullivan, & Samet, 2000), was consistently found ineffective to increase competency if used as the only training strategy. This strategy is, however, still important to introduce the theoretical background

and basic rationale of a treatment (Rakovshik & McManus, 2010). When the target of EBPI trainings is to change mental health providers' ability to deliver the treatment competently, didactic training should still be incorporated but kept to a minimum, and most importantly, followed by other more active, high intensity training strategies.

Modeling of the learned psychotherapy techniques by a trainer or expert of the particular treatment has been shown to be beneficial. In a training aimed to improve counselors' responses to negative affect (e.g., anger or depression), trainees performed a significantly higher duration of empathy responses when they received modeling from an expert compared to those who received other instructional methods without modeling (Hector, Davis, Denton, Hayes, & Hector, 1979; Hector et al., 1981). Another study found that the group that received modeling performed superior to a control condition when responding to different aspects of anger (K. L. Davis et al., 1985).

Once trainees learn how therapeutic skills should be implemented through modeling, it is pertinent for them to receive the opportunity to practice the targeted skills. It is recommended that practice occurs both within and between training sessions. In a meta-analysis of different training methods, it was revealed that when increases in skills were the target of training, the addition of practice on top of didactic training resulted in effect sizes of 1.18 versus 0.5 when practice was not included (Joyce & Showers, 2002). In terms of the duration and frequency of practice, several studies found that shorter practice sessions that are conducted over time are more likely to produce lasting skill acquisition compared to longer practice sessions conducted over a shorter period (Donovan & Radosevich, 1999).

Receiving immediate feedback on therapeutic skills after practice or implementation in actual therapy sessions has been proposed as an important component of active learning (Balcazar, Hopkins, & Suarez, 1985), particularly when the goal is to promote acquisition and retention of new therapeutic skills (Kivlighan, Angelone, & Swafford, 1991). One study evaluated the effect of different types of feedback on decreasing "inappropriate" interviewing behaviors (Hosford & Johnson, 1983). Trainees were randomly assigned to either receive feedback that pointed out only their appropriate behavior, both appropriate and inappropriate behavior, or written feedback. It was found that all three types of feedback resulted in a significant decrease in inappropriate interviewing behaviors although those who received feedback only on the appropriate behaviors showed the most improvement. Another study found that those who received feedback from either expert trainers or other trainees both outperformed the control condition (Robinson, Kurpius, & Froehle, 1979).

The effectiveness of post-training supervision in improving trainees' skills consistently gained empirical support. Most successful trainings typically had a supervision component after the training period (Hilsenroth, Defife, Blagys, & Ackerman, 2006). On-going supervision allows trainees to implement the newly learned EBPI strategies in clinical setting and receive feedback on their skills. Although still limited, existing research suggested several factors regarding supervision that may improve training outcomes. First, supervision provided by an expert of the treatment may be crucial particularly in the beginning stage of EBPI implementation (Franklin, Abramowitz, Furr, Kalsy, & Riggs, 2003). Second, maintenance of supervision for some time after the training may be necessary since initial positive effects of training tend to

dissipate when supervision was terminated at the end of the training period (Bein et al., 2000). There is some but limited evidence that live supervision (e.g., provided directly when the trainee was with a client or immediately after therapy session) was more favorable than delayed supervision (Kivlighan et al., 1991; Multon, Kivlighan, & Gold, 1996; Smith et al., 2007).

Although preliminary data seems to support the importance of incorporating supervision in EBPI trainings, this element of active learning strategies potentially possesses more challenges to implement. Supervision may not always be feasible in actual clinical practice due to several factors. First, EBPI trainings with an on-going supervision component will potentially be more costly, particularly when supervision is provided by an expert. Second, often only a small number of people are considered as the current "experts" of certain EBPIs, naturally limiting the availability of supervision for many mental health providers. These two factors seem to be significant barriers to dissemination of EBPIs, especially when the eventual goal is to efficiently spread EBPIs widely so the treatments can be accessible by a large population.

McHugh and Barlow (2012) also pointed out that data on supervision is preliminary and mostly based on uncontrolled trials. Further research should be conducted to examine the role of supervision as an active mechanism of action in EBPI training. Potentially, other factors may mediate the impact of supervision. For instance, a study on Motivational Interviewing (MI) training found that even with ongoing supervision after training, providers with low baseline skills and less motivation to learn MI were not able to maintain gains in skills (Moyers et al., 2008). Future research should

also evaluate how other factors, such as organizational support, the complexity of EBPIs, and the type of disorders, may influence the impact of supervision in EBPIs training.

Potentially, two important keys to successful EBPIs dissemination are efficacious yet efficient strategies. Using the simplest yet impactful strategies in EBPI training is, therefore, crucial. In designing EBPI training content, this principle should also be taken into consideration. Psychotherapy is a complex process that requires providers to gain enough theoretical understanding and learn multiple therapeutic skills. EBPI training content should, however, consist of materials that will be most beneficial for its eventual goal. For instance, for those who aim to be experts and/or researchers in one type of EBPI, it will be important to learn the theory, history, and line of research behind the treatment. However, if the goal is mainly to be a competent provider who can deliver the treatment effectively, it may be more beneficial and efficient to focus mainly on skill building. It was recommended by Beidas and colleagues (2012) that EBPI training focus on principles of a treatment rather than on one protocol to reduce the burden of learning.

Utilization of advanced technology to achieve active learning and maximize efficiency is another recommendation when designing EBPI trainings. For instance, several trainings have used websites and DVDs to deliver training content so trainees can have repeated access to the materials (J. Bennett-Levy, McManus, Westling, & Fennell, 2009; Dimeff et al., 2009). To minimize cost and human resources, online technology (e.g., websites) may be a viable modality for the initial didactic training prior to a more rigorous, active training led by an expert. Live, online trainings where the trainer and trainees meet via a chat-room has several documented benefits.

Online EBPI training can provide access for mental health providers who do not have access to direct EBPI training in their locations (Kenneth R. Weingardt, 2004). The typical psychotherapy trainings are usually conducted in one location, which requires many providers to travel. This set-up increases required time and financial investments for providers, which are the two most commonly barriers to learning EBPIs (Michael E. Addis, Wade, & Hatgis, 1999; D. H. Barlow, Levitt, & Bufka, 1999; Nelson, Steele, & Mize, 2006; S. L. Pagoto et al., 2007; Riley et al., 2007; Stewart, Chambless, & Baron, 2012). It was estimated that online training can significantly reduce the cost of face-to-face training and cut the amount of time required by 50% (J. Bennett-Levy & Perry, 2009).

Online EBPI training also has a potential to accommodate active learning strategies. The typical EBPI workshops are delivered in long training sessions within a short period of time (e.g., three days of training with 8-hour training session each day). With this set-up, even when active learning strategies (e.g., practice and feedback) are implemented within the training sessions, trainees do not have the chance to slowly consider, reflect, and integrate the newly learned skills with their previous knowledge, in their own experience, and in their clinical practice with their clients. This process is inconsistent with the recommendations on the importance of pacing for adult learning (Donovan & Radosevich, 1999). Online training, on the other hand, can be delivered over an extended period of time (e.g., four training sessions delivered every other week), which allows trainees time to practice and integrate the newly learned therapeutic skills in between training sessions (A. Puspitasari, Kanter, Murphy, Crowe, & Koerner, 2013). Furthermore, Puspitasari and colleagues (2013) also reported that other active learning

components, such as modeling, feedback, and within session practice, were feasible to be conducted within a live, online training format.

Online training is the fastest growing development in professional education and training (Means, Toyama, Murphy, & Baki, 2013) and emerging evidence indicates the potential efficacy and effectiveness of this delivery modality. Sholomskas and colleagues (2005) found that CBT online training was shown to be more effective than training manuals without further support and equivalent to direct, face-to-face training. Other studies showed the comparable effect of online training when compared to typical psychotherapy workshops (R. S. Beidas, Edmunds, Marcus, & Kendall, 2012; K. R. Weingardt, Villafranca, & Levin, 2006; Williams, Aubin, Harkin, & Cottrell, 2001).

Research on the potential efficacy and effectiveness of online EBPI training is, however, still limited. It has been recommended that further studies should examine if active learning strategies delivered via online training (e.g., moderated discussion forums, practice sessions via chat-rooms) are comparable or even superior to a more costly training strategy, such as on-going supervision by an EBPI expert (Cucciare, Weingardt, & Villafranca, 2008; Fairburn & Cooper, 2011).

Behavioral Activation as an EBPI for Depression

Behavioral Activation (BA) is a treatment for depression that has been considered as well-established/efficacious by the American Psychological Association's Division 12 Task Force on Promotion and Dissemination of Psychological Procedures (Chambless & Hollon, 1998). The efficacy and effectiveness of BA as an EBPI for depression have been presented in several meta-analyses and systematic reviews (Cuijpers, van Straten, & Warmerdam, 2007; S. Dimidjian, Barrera, Martell, Munoz, & Lewinsohn, 2011; D.

Ekers, Richards, & Gilbody, 2008; T. Mazzucchelli, Kane, & Rees, 2009). A more current meta-analysis also indicated that BA has potential in improving people's well-being in general (T. G. Mazzucchelli, Kane, & Rees, 2010).

The History and Theoretical Foundation of BA. The basic theoretical underpinnings of BA are in behaviorism (Skinner, 1953), which postulates that maintenance of a behavior is influenced by the environmental context or antecedents and the consequences following the behavior. Based on this theoretical foundation, several people, such as Charles B. Ferster, Peter M. Lewinsohn, and Aaron T. Beck, became early pioneers of BA because they either developed behavioral conceptualizations of depression or behavioral techniques used to treat depressive symptoms.

The behavioral conceptualization of depression in BA was influenced mainly by Ferster, who postulated that depression results from a decrease in certain types of productive activities and an increase in escape or avoidant activities (Ferster, 1973). As a result, when people engage in this behavioral pattern, they no longer experience the rewarding consequences of performing productive, healthy, personally-meaningful activities. Thus, in behavioral terms, these activities are no longer positively reinforced. On the other hand, escape or avoidant behaviors are typically maintained by negative reinforcement, which means that engagement in such activities typically results in immediate elimination of aversive consequences from someone's life.

Lewinsohn's theory of depression (1985) is consistent with Ferster's, although his particular focus was on the lower rate of "response-contingent" positive reinforcement when people are depressed. It was postulated that negative life events in someone's life may result in a decrease of activities that bring rewarding positive consequences (P. M.

Lewinsohn, Hoberman, Teri, & Hautzinger, 1985). This conceptualization, then resulted in the development of pleasant event scheduling (Peter M. Lewinsohn & Gotlib, 1995) that later became an element of one of the core strategies in current BA treatment. The goal in the early treatment of depression by Lewinsohn and his colleagues was to help clients start or maintain activities that will increase the rate of positive reinforcement in their lives.

Aaron T. Beck was primarily responsible for introducing core BA techniques to a wider audience after the publication of the Cognitive Therapy (CT) for depression manual (Beck, 1979). In this manual, helping people to engage in productive and rewarding activities is one of the key strategies particularly for those with more severe symptoms of depression. The main difference between Beck's conceptualization of BA and current BA is the aim of activation. For Beck, successful engagement in desirable activities is used to gather evidence and challenge negative automatic thoughts and core beliefs, while in current BA the goal of activation is to increase the rate of positive reinforcement (C. R. Martell, Dimidjian, & Herman-Dunn, 2010).

Research on BA. In 1996, Jacobson and colleagues conducted a large-scale randomized controlled trial to dismantle different components of CT. They randomly assigned 150 outpatients with major depression to three treatment conditions; BA only, BA and skills to modify automatic thoughts, and the full CT treatment including BA, modification of automatic thoughts and core beliefs. This hallmark study found that all three conditions were comparable at post and 2-year follow-up (Gortner, Gollan, Dobson, & Jacobson, 1998; N. S. Jacobson et al., 1996). Because the BA-only condition was more

parsimonious than then the complete CT treatment, it may be a less costly alternative, especially when the goal is to achieve wide dissemination.

The efficacy and effectiveness of BA has been demonstrated in randomized trials and compared to other EBPIs for major depression. One study found that BA was comparable to pharmacotherapy (Paroxetine) and superior to CT among patients with severe depression (S. Dimidjian et al., 2006). The retention rate for those in BA condition was also higher than those in pharmacotherapy condition. At two-year follow up, the relapse rate for BA was comparable to CT and remained lower than pharmacotherapy (Dobson et al., 2008).

Data on the efficacy and effectiveness of BA as a treatment for co-existing major depression and other psychological and physical conditions across diverse population is also accumulating. In a preliminary open trial and RCT, BA seemed to be promising as a treatment for comorbid PTSD and depression (Jakupcak et al., 2006; Wagner, Zatzick, Ghesquiere, & Jurkovich, 2007). A recent RCT evaluated the effect of BA in treating depression in women with breast cancer and depression (D. R. Hopko et al., 2011). Other studies have examined the effectiveness of BA as a treatment for co-morbid depression and other physiological or psychological conditions such as obesity (S. Pagoto et al., 2008), other types of cancer (Armento & Hopko, 2009; D. R. Hopko, Bell, Armento, Hunt, & Lejuez, 2005), borderline personality disorder and suicidal ideation (D. R. Hopko, Sanchez, Hopko, Dvir, & Lejuez, 2003), and anxiety disorder (Derek R. Hopko, Lejuez, & Hopko, 2004). Furthermore, BA seems to be promising as a treatment that can be administered across ages (McCauley, Schloredt, Gudmundsen, Martell, & Dimidjian, 2011; Meeks, Looney, Van Haitsma, & Teri, 2008) and cultural backgrounds (J. W.

Kanter, Santiago-Rivera, Rusch, Busch, & West, 2010; Le, Zmuda, Perry, & Munoz, 2010; Moradveisi, Huibers, Renner, Arasteh, & Arntz, 2013).

BA Dissemination. Several authors have argued that BA may be especially suitable for large-scale dissemination (Hollon, 2000; Jonathan W. Kanter, Busch, & Rusch, 2009; Sturmey, 2009) for several reasons. First, compared to other treatments for depression, BA strategies are relatively simple and straight-forward. Thus, this treatment may potentially be easier to train and learn even by providers who do not have extensive training in psychotherapy, and may limit the need for extensive and costly post-training supervision. Second, when BA skills are concretely defined behaviorally (J. W. Kanter, Manos, et al., 2010) it will simplify both the training and attempts to measure the outcomes of the training. These postulations, however, remain largely untested in empirical studies. Thus, further research to evaluate the efficacy and effectiveness of BA dissemination strategies is necessary and important.

Current dissemination strategies for BA include publication of treatment manuals, incorporation of BA in graduate training curriculum, and continuing education training. Based on the initial dismantling study (N. S. Jacobson et al., 1996), the initial BA treatment manual was published (C. Martell, Addis, & Jacobson, 2001) and became accessible for general public. Several years later, a different group of investigators published a treatment manual on a more simplified version of BA (Lejuez et al., 2001), which was revised 10 years later (Lejuez, Hopko, Acierno, Daughters, & Pagoto, 2011). Kanter and colleagues (2009) took a more modular approach to BA and published a treatment manual that specifies BA core and specific strategies that were included in different versions of BA. More recently, Martell, Dimidjian, and Herman-Dunn (2010)

published another BA manual aimed to be a practical guideline for mental health providers that highlights core BA principles.

Preliminary data indicate the potential for BA to be disseminated through a more active training approach. Although limited, existing research showed the effectiveness of BA training in improving skills and potentially therapeutic outcomes when delivered to different types of mental health professionals. In a preliminary study (D. Ekers et al., 2011), two mental health nurse practitioners received a 5-session BA training consisting of didactics, practice, and feedback and several sessions of supervision. They completed a competency assessment at the end of the training and delivered BA to a group of patients with major depression. Results indicated that the BA group performed better than the treatment-as-usual group. A replication of this study included more nurse practitioners (N = 10) and produced consistent findings (D. M. Ekers, Dawson, & Bailey, 2013). Patients' improvements in this study were comparable to patients who received BA from more experienced therapists. It was concluded that BA is a parsimonious treatment that can be learned by providers without previous training in psychotherapy. Another study found that BA training may be successfully provided by master-level clinicians in a short period of time (Moradveisi et al., 2013).

Data on the effectiveness of BA training, however, mostly were part of larger efficacy trials. Currently, only three preliminary open trials have been conducted to specifically assess the effectiveness of online BA trainings (A. Puspitasari et al., 2013). The authors provided several rationales for choosing an online platform as the training delivery modality. First, online training allowed more access for mental health providers who are located in diverse geographical locations. In fact, two participants in the study

were located outside the United States, where the study was conducted. Second, online training would cost less compared to a fact-to-face workshop format. Third, the online BA training sessions could be spread over a period of time which allowed trainees to practice the newly learned BA skills in between sessions and receive feedback from the expert trainer and other trainees in the following training sessions.

In these open trials, an online BA training utilizing a modular, active learning approach was developed and delivered to a group of community mental health providers (e.g., psychologist, psychiatrist, social workers, and occupational therapist). In the first trial, trainees (N = 8) interacted with a BA expert trainer for three, 90-minute training sessions delivered every other week. In the second trial (N = 9) training content was further developed and training was delivered in four, 90-minute sessions delivered every other week. The study was then replicated in the last trial (N = 6) and improvements were made regarding the training content, strategies and outcome assessment.

Results from these three trials by Puspitasari and colleagues indicated that a modular, active learning BA online training resulted in a significant increase in BA skills at pre-, post-, and six-week follow-up, when measured by Behavioral Activation Skills Assessment (BASA; A. J. Puspitasari, Kanter, & Crowe, 2012), a role play assessment where trainees interacted with a hypothetical depressed client and were prompted to use BA skills that were then rated by two independent BASA coders. Trainees in these studies also reported high satisfaction with the BA online training and increased confidence and implementation of BA strategies in their clinical practice throughout the training.

Several limitations of these previous preliminary studies should be noted. First, the sample size across the three studies was small and a larger study to assess if the results can be replicated is necessary. Second, the BASA was in its early development and assessment was only based on one scenario, which did not control for the impact of the depression severity presented by the hypothetical client. Third, although findings were promising, a lack of control condition limited conclusions about the active ingredients of the training. A randomized trial with more active comparison conditions would control for theoretically important, and ecologically valid, training elements, such as a traditional passive learning strategy, face-to-face didactic workshop, or online, self-paced training. Lastly, the trials were led by one BA expert only, which limited the training's external validity and did not rule out the impact of the trainer on the outcome.

The Current Research Study

The need for large-scale dissemination of EBPIs for depression is warranted. As an EBPI for depression, BA has been considered as a parsimonious treatment that is potentially easy to train and disseminate. Research that focuses primarily on BA training is, however, still very limited.

It has been recommended that EBPI training should include several factors. First, training should utilize active learning strategies such as modeling, practice, immediate feedback, and supervision. Second, when the primary aim of training is to increase therapeutic skills, training content and activities should focus on increasing knowledge as well as skills. Third, delivery strategies should be accessible, cost-efficient, and effective, which may be achieved when utilizing advanced technology. Fourth, training outcome assessment should evaluate the impact of training on trainees' skills not just knowledge.

In terms of BA training, the effect of active learning strategies, a modular approach, and an appropriate delivery modality remains largely unknown.

This current project was built on the previous preliminary studies (A. Puspitasari et al., 2013) and contributed some novel contributions in this research area. The primary aim of this study was to evaluate the efficacy of a trainer-led online BA training program when compared to a self-paced online BA training program. While the previous open trials indicated the promising effectiveness of the expert-led BA online training, this current RCT design allowed further evaluation of the efficacy of the BA training package that consisted of active learning strategies, modular approach, and delivered by a BA training live using a train-the-trainer model when compared to a more passive, self-paced, online BA training control condition. Changes in scores for participants overall and core BA skills were compared between the two conditions.

An additional improvement was the refinement of the training content and the recruitment of two new BA trainers to see if the trainer-led online training package could be delivered by other people with sufficient training and research in BA. This process allowed an evaluation of the feasibility of this online BA training package to be delivered by more diverse trainers. A self-paced online BA training was developed and its impact on BA skills were assessed, a process that was novel and had never been conducted in the previous open trials.

Hypotheses

Hypothesis 1: It was predicted that participants in the trainer-led online BA training would achieve a significantly greater increase in overall and specific BASA scores compared to those in the self-paced online BA training.

Hypothesis 2: It was predicted that participants in the trainer-led online BA training would report significantly greater increases in reported confidence to implement BA skills compared to those in the self-paced online BA training.

Hypothesis 3: It was predicted that participants in the trainer-led online BA training would report significantly greater increases in the reported number of clients receiving BA strategies in their clinical practice compared to those in the self-paced online BA training.

Hypothesis 4: It was predicted that participants in the trainer-led online BA training would report higher satisfaction towards the training compared to those in the self-paced training.

Methods

Power Analysis. A power analysis was conducted using the G*Power statistical software. The following parameters were used: (1) the entered effect size was f = 0.2 since the previous uncontrolled trial assessing the effect of the trainer-led online BA training at two time points resulted in effect size of f = 0.4. It was predicted that the effect size for the self-paced condition would be half of the trainer-led online BA training condition on increased competency, which made the difference in effect size between the two conditions to f = 0.2; (2) α error probability = 0.05; (3) Power (1-β error probability = 0.95; (4) number of groups = 2; (5) number of measurements = 2; (6) nonsphericity correction € = 1; and (6) because the correlation among repeated measures was unknown at this point, two numbers were entered. When the correlation among repeated measures was predicted to be moderate (0.7) the total sample size needed was 28 people to achieve power = 0.96. When the correlation among repeated measures was predicted to be high

(0.9), the total sample size needed was 20 people to achieve power = 0.96. Since a follow-up might be conducted, although not included as part of this dissertation, when the number of measurements was changed to 3 and the correlation among repeated measures was kept moderate (0.7) the total sample size needed is 42 people to achieve power = 0.95.

Recruitment and screening. The study protocol was approved by UWM IRB on 10/14/2013. Recruitment period occurred between 11/01/2013 to 11/30/2013. Recruitment occurred via several different strategies. First, a recruitment script (Appendix A) were posted on the Practice Ground Community website, an internet based learning community of approximately 150 therapists located in the United States, Canada, Europe, and Australia. The purpose of the learning community is to facilitate the dissemination of the best available practices in cognitive and behavioral therapies.

Second, the same recruitment script were emailed to several professional listserves including the Association for Behavioral and Cognitive Therapies – Dissemination and Implementation Science Special Interest Group, The American Psychological Association – Society of Clinical Psychology (Division 12), The American Psychological Association – The Division of Psychotherapy (Division 29), and the American Association of Directors of Psychiatric Residency. Third, recruitment script was sent to director of clinical training in Clinical Psychology (169 programs), Counseling Psychology (80 programs), Social Work (98 programs), and Nursing (102 programs).

Graduate students who were interested to participate in the study were provided with the link to the online consent form. Those who had questions and/or needed to

discuss the study in more detail were encouraged to contact the study personnel. Interested participants completed the screener questions to assess their eligibility to participate before they completed the consent form (Appendix B). Those who did not meet the inclusion criteria were immediately informed after they completed the screener questions online. Those who were eligible provided their consent by entering their electronic signature online.

The inclusion criteria to participate in the study were: 1) supervised by a licensed individual, 2) currently graduate-level students in the following programs: Clinical Psychology, Counseling Psychology, Social Work, Nursing, and Psychiatry Residency, 3) Actively seeing depressed outpatient clients as part of his/her training during the study period, and 4) able to comply with study procedures (i.e., computer with high speed internet access). During recruitment and consent process, potential participants were informed that there was no incentive for participating in the study.

Randomization. The two training conditions focused on the same four core BA skills delivered via either the trainer online training or the self-paced online training. Although 98 participants completed the consent form, 11 potential participants withdrew before randomization, and 7 participants were not available to attend the were training if they were randomized to this training group, thus their results were not included in the final analyses. Of the 98 participants who provided consent, 80 participants were eligible to be randomly assigned to one of the two training groups. Block randomization was conducted to match the type of graduate program between training conditions. Participants were divided based on the type of graduate program they were in, which created four different blocks. Within each block, participants were randomly assigned to

either the trainer-led or self-paced online training using random number generator provided by www.random.org.

Assessment procedures. After providing consent, participants completed the self-report assessments online, which included the demographic questionnaire, self-reported implementation of BA strategies, and self-reported confidence in providing BA to their actual clients. Participants were then provided with a list of available times to complete the 1-hour, pre-training role play assessment and they ranked at least three preferred times for the role play assessment. A study personnel organized the role play assessment schedule and informed participants the time of their assessment. If participants needed to reschedule the role play assessment, they were encouraged to contact the study personnel as soon as possible via email. If participants did not show up for their scheduled role play assessment, participants were contacted by the study personnel to re-schedule their assessment.

The role play assessment was conducted over the phone. Participants completed the implementation, confidence, and satisfaction questionnaires at the end of each training session. Those who did not complete the questionnaires within two days since the end of the training session received a reminder from the study personnel via email. No identifying information was included in any of the online questionnaires. The recorded portion of the role play assessment also did not contain identifying information and training group assignment. Participants were only asked to state their participant ID during the recorded phone call. Assessment procedures at post-training period were the same as the baseline period.

Training Protocol. The BA training content was developed based on BA manuals by Kanter et al. (2009), Martell et al. (2001), and Martell et al. (2010). Core BA skills presented in the manuals were identified, clearly defined behaviorally, and were presented modularly in the training. These BA core strategies were 1) providing a BA rationale, 2) assessment in BA, 3) activity scheduling, and 4) strategies to target avoidance. Within each core strategy, several micro-skills were also identified.

Two BA trainers with at least five years training and research experience in BA were recruited and trained. These trainers completed the "train-the-trainers" training conducted by Dr. Jonathan Kanter. This train-the-trainers training consisted of four 1-hour meetings delivered in one month. During the training, the potential trainers were oriented to the training materials, content, and online training protocols. In addition to discussing the specific core BA strategies, the two BA trainers learned how to provide modeling, lead the practice section, and provide immediate feedback. During the actual training, a study personnel was present with a fidelity checklist (Appendix C) to assure that trainers followed the scheduled training activities for each session (e.g., 15 minutes homework review, 15 minutes didactic, 15 minutes modeling, 30 minutes practice; 10 minutes general discussion). The study personnel also provided private written reminders regarding training time for the trainers to assure fidelity.

Prior to the first training sessions, all trainees from both groups were asked to complete several readings on BA (e.g., Kanter et al., 2010; Mazzucchelli, Kane, & Rees, 2010). The readings were intended to orient trainees to the history, theoretical background, and the rationale for each BA core skill and to minimize didactic training for those in the trainer-led training condition.

The training content in the trainer-led and self-paced trainings were matched. The modular core BA skills were presented in this order: Activity Scheduling (Session 1); Strategies Targeting Avoidance (Session 2); BA Assessment (Session 3); and Providing BA Rationale (Session 4). The BA strategies were presented in reverse to how they were typically presented in actual therapy, allowing more time to learn and practice BA skills that were considered more important and difficult.

The self-paced online BA training consisted of four 40-minute online presentations that were audio-guided by an undisclosed trainer. The name and face of the BA trainer was not revealed to control for the effect of participant's perception on the trainer's expertise. Training sessions were delivered in four weeks and participants in this condition received a module in the beginning of each training week. Participants were asked to complete each module independently and at their own pace. Participants also had unlimited access to the self-paced materials. At the end of each training module, participants were encouraged to practice the newly learned BA skills on their own, integrate the skills in their lives, and implement the skills with their clients.

The trainer-led online BA training consisted of four 90-minute trainer-led online sessions where the expert interacted with eight to ten participants via a training website provided by Practice Ground (http://www.practiceground.org). While the training content in this condition was kept the same as the self-paced condition, the training consisted of less didactic (15-20 minutes) and more active learning strategies.

In each session, after the BA trainer provided a short didactic presentation, they modeled each BA core skill for the participants. The participants were then encouraged to practice the skill through a role play exercise. Participants received immediate feedback

after the practice from both the trainer and other trainees. A discussion was conducted at the end of each training session, which allowed participants to ask questions on the learned BA skills. Participants were given assignments in-between sessions to integrate the BA skills in their own lives and implement the skills in therapy sessions with their clients. Approximately 10 minutes were allocated at the beginning of each training session to discuss and give feedback on trainees' progress practicing BA skills between training sessions.

Measures

Demographic Information Measure (Appendix D). This is a 26-item measure intended to provide information about participants age, gender, educational background, ethnicity, typical client demographic, previous training in BA, and familiarity with BA strategies.

Behavioral Activation Skills Assessment (Appendix E). The initial BASA (A. J. Puspitasari, Kanter, et al., 2012) was developed to assess trainees' abilities to implement core BA skills with a scripted hypothetical depressed client acted by a trained BASA assessor. The BASA had gone through several revisions where it initially consisted of 38 items and three subscales: Providing BA Rationale, Values Assessment, and Activity Scheduling (A. Puspitasari et al., 2013). The Chronbach's alphas for each subscale were .87, .82, .79, and .91 for Providing BA Rationale, Values Assessment, Activity Scheduling, and Overall BASA score respectively, which indicated acceptable internal consistency. The correlations between each skill and the total score were *r's* = .85, .90, and .84, all p's $< .001$, reflecting the contribution of each subscale score. The inter-rater reliability of BASA coders was high in all cases, ranging from .84 to 1.00. For

criterion reliability, ICCs were .87 for providing the rationale, .67 for values assessment, .87 for activity scheduling, and .86 for total skill.

Further development of the BASA resulted in the addition of two new subscales: Activity Monitoring and Strategies Targeting Avoidance. This BASA version contained 39 items and five subscales: 1) Providing BA Rationale (11 items), 2) Assessment (6 items), 3) Values Assessment (9 items), 4) Activity Scheduling (6 items), and 5) Strategies Targeting Avoidance (7 items). Cronbach's α was calculated to evaluate the internal consistency of the BASA scores for total skill and each core BA skill. Results indicated acceptable internal consistency for all scores (α's = 0.92, 0.87, 0.74, 0.67, 0.89, and 0.57 for total BA skill, providing the rationale, assessment, values assessment, activity scheduling, and strategies targeting avoidance, respectively). The inter-rater reliability was generally high for the BA total and skills (ICC's = 0.97, 0.96, 0.84, 0.95, 0.96, and 0.93 for total BA skill, providing the rationale, assessment, values assessment, activity scheduling, and strategies targeting avoidance, respectively).

Several changes were made to the current version of the BASA based on the results of a quantitative and qualitative study where the BASA was administered to a group of BA experts (A. J. Puspitasari, Crowe, Murphy, & Kanter, 2012; A. J. Puspitasari et al., 2013). This study found that experts achieved significantly higher scores than mental health providers who had not received the BA online training. This difference became insignificant after the same providers received the training. This study supported the convergent validity of the BASA. Both quantitative and qualitative analyses revealed that there were BA skills performed by experts that were not included in the last version of the BASA. These skills were added in the current BASA version.

The BASA rating sheet for this current study (Appendix E) consisted of 28 items and four subscales: Providing the BA Rationale (11 items), BA Assessment (6 items), Activity Scheduling (5 items), and StrategiesTargeting Avoidance (6 items). Each item was rated from 0 = *not at all competent* to 6 = *extremely competent*. The criteria for each level of competency for all of the items were concretely defined in the BASA rating sheet.

Four BASA scenarios (Appendix F) were created describing four hypothetical clients. Two scenarios described two women who represent withdrawn, inactive depressed clients. The other two scenarios described men who represent active depressed clients who maintain activities that are not particularly rewarding and personally meaningful. In the BASA instructions, participants were provided with a brief synopsis, relevant clinical information and diagnosis of the hypothetical client. Participants were then prompted to implement four core BA strategies, including providing BA rationale, BA assessment, activity scheduling, and strategies targeting avoidance.

Three undergraduate research assistants (two women and one man) were trained to be the BASA assessors. Several meetings were conducted for these RAs to learn and practice the BASA scenarios. The female RAs learned both hypothetical female client scenarios and the male RAs learned both hypothetical male client scenarios. During the role play assessment these RAs were blinded to participants' condition and were instructed to be reasonably compliant and cooperative.

Seventy-seven participants completed the pre-training role play assessment and 64 participants completed the post-training role play assessment. All participants did not receive the same scenario between pre- and post-training role play assessment to control

for practice effect. Participants received the BASA scenario and instructions via email 1 day prior to the scheduled assessment. In the beginning of the role play assessment participants were asked to implement the four core BA strategies as best as they could even if they had no prior training in BA. On average, the role play assessments took 40 to 60 minutes to complete and were conducted over the phone. Assessments were audio recorded for coding purposes.

Three coders were trained in a 1 year period. Training consisted of reading BA manuals, weekly didactic training for 6 weeks, and several coding practices. Prior to coding the actual study data, all coders rated three BASA recordings created to check coders' reliability when compared to a BA expert coder. Overall, the inter-rater reliability between each coder and the expert coder on total and subscale scores were high ranging from ICC = .89 to .98. Please refer to Table 1 for the complete data on BASA inter-rater reliability scores. Coders were blinded to training groups and assessment times.

Self-Reported Confidence (Appendix G). Perceived confidence in implementing BA skills was assessed at pre-training and at the end of each training session. The questionnaire consisted of 4 items assessing perceived confidence on the four core BA skills (e.g., "*In general, if you tried the technique, how confident did you feel with providing BA rationale?*"). Each question is rated on a 6-point Likert scale, with 0 (*did not try*), 1 (*completely lacking confident*), 2 (*somewhat lacking confidence*), 3 (*neutral*), 4 (*somewhat confident*), and 5 (*very confident*). Total confidence scores were calculated by adding participants rating on the 4 items.

Self-Reported BA Implementation Measure (Appendix I). Self-reported BA implementation were assessed at baseline and at the end of each training session.

Participants identified the number of clients that they saw in the past week by answering the following four questions: "*This past week, with how many clients did you try: (1) providing BA rationale; (2) BA assessment; (3) activity scheduling; (4) strategies targeting avoidance?*"

Training Satisfaction Questionnaires (TSQ; Appendix I). Participants completed the TSQ at the end of each training session. The TSQ consisted of 6 quantitative general questions and 3 open-ended questions to assess participants' satisfaction with the BA training. The 6 quantitative questions assessed perceived helpfulness, quality, usefulness, participants' likelihood to incorporate BA strategies, satisfaction on training duration, and satisfaction on training slides. Examples of the quantitative questions were "*Please rate the quality of this [Activity Scheduling] section of the class*" and "*How satisfied were you with the length the [Providing BA Rationale] training session?*" Participants rated each quantitative questions on a 5-point Likert scale, with 1 (*poor*), 2 (*fair*), 3 (*good*), 4 (*very good*), and 5 (*excellent*). Total satisfaction scores were calculated by adding participants' rating on the 6 quantitative items.

The 3 qualitative questions at the end of each training session asked participants to provide feedback on the training content for each core BA skill that were not helpful, recommendations for future training, feedback on participants comfort level in implementing BA skills. Examples of the open-ended questions were "*Was there anything about the training content (strategies targeting avoidance) that was not helpful?*", "*Anything you would recommend to change or present differently?*", and "*Do you have any other general feedback?"* Additionally, the five open-ended questions included in the last TSQ (post-session 4) assessed participants' overall satisfaction on the

format of the class, personalized homework, length of training time, dissatisfaction towards BA techniques and suggested improvements.

The TSQ also consisted of quantitative questions tailored specifically for each training group. Participants in the live group, in addition to the questions described above also completed 6 quantitative questions to assess their satisfactions on each BA live session. The 6 quantitative questions for those in the live group assessed participants' satisfaction on the didactic, modeling, practices, feedback, and online technology that were included in the training. Examples of the quantitative questions were "*How satisfied were you with the modeling portion of the class" and "how satisfied were you with the feedback you received from the trainer when practicing the skills?"* Participants rated each quantitative questions on a 5-point scale, with 1 (*poor*), 2 (*fair*), 3 (*good*), 4 (*very good*), and 5 (*excellent*). Participants in the self-paced group completed 1 additional quantitative question on the TSQ ("*How satisfied were you with the self-paced aspect of the training where you can complete it on your own time*?").

Procedure. Graduate students who were interested to participate in the study were provided with the link to the online consent form (Appendix B) and asked to review and provide the consent if they were willing to participate. Those who had further questions regarding the consent form could contact and discussed it with study personnel over the phone. Participants who provided consent and met the inclusion criteria were randomly assigned to either the live or self-paced online BA training condition. There were 7 participants who completed the consent form and met the criteria but were not able to attend any of the trainer-led training session should they be randomized to the trainer-led training group. These 7 participants received the self-paced training and

completed outcome measures but their data was excluded from primary analyses. Participants in the trainer-led training were assigned to one of the four trainer-led training groups with different pre-determined meeting times. Participants had the chance to rank their preferred training times but were not guaranteed that they would receive their top choice. Each trainer-led training group had approximately 8-10 participants in it. The trainer-led online training consisted of four 90-minute training sessions delivered weekly. At the end of each training session, participants were asked to complete weekly questionnaires to assess their satisfaction with the session, perceived competence and implementation of BA skills with their clients.

Participants who were randomly assigned to the self-paced online training received four 30-minute slide presentations audio guided by a BA trainer. The self-paced training was conducted over the course of four weeks. Participants received access to the online self-paced module in the beginning of each training week. Participants completed one training module per week. Participants also had unlimited access once they received the self-paced training presentations. At the end of each training week, participants in this condition completed weekly questionnaires to assess their satisfaction with the self-paced presentation, perceived competence and implementation of BA skills with their clients. Participants completed the post-raining assessments within two weeks after the training ended.

Data Analysis

The data was analyzed using IBM SPSS 20 software. To assess baseline characterics differences between group, chi-square analyses were conducted for nominal variables and independent-sample t-tests were conducted for continuous variables. The

percentages of participants who completed each trainer-led and self paced session were calculated to assess participants rate of attendance. Chi-square tests were conducted to assess the potential association between the type of training and attendance. The average number of training sessions completed by participants in both training group was calculated and independent-sample t-tests were conducted to assess the difference between groups on the mean number of training sessions completed.

Since the number of minutes for each training activity (e.g., didactic, modeling, practice) were prescribed to the trainer in the trainer-led group, trainers' adherence to training protocols were measured and calculated. To assess potential differences between the two trainers on adherence, independent-sample t-tests were conducted to compare the mean number of minutes spent for each training activity by the two trainers on all training activities. The potential impact of trainers on BA skills were also calculated using mixed ANOVA. Since this current version of BASA was first implemented in this study, additional analyses to assess the psychometric properties of this version were conducted. Internal consistency of the BASA scores for core and total BA skills was assessed by calculating Cronbach's α.

Mixed between-within subject analyses of variance (ANOVA) tests were conducted to assess for the differences between conditions in the change from baseline to post-test in: 1) overall BASA score and the four BASA subscale scores and 2) self-reported confidence scores, and. Of interest in these tests are significant interactions between condition (trainer-led, self-paced) and time (baseline, post-test). Paired-sample t-tests were conducted to assess changes from pre to post for each group on the above

variables. Independent sample t-tests were conducted to compare the means of these variables between the intervention and the control group at the two time points.

Since our study sample was graduate students in mental health fields, many of the participants reported that they did not have the opportunity to see patients with depression at pre- and post-training. Thus, reported implementation of BA strategies might be influenced significantly by the absence of depressed clients that they treated during the study. For this reason, assessing mean differences on the number of reported BA strategies implemented might not be appropriate. Instead, we dichotomized the responses from the question "*How many of these [clients that they saw in the past week] had depression as a significant problem?*" to "*Wether or not they had at least one client with depression [yes/no]*". Moreover, instead of analyzing the number of client who received each core BA strategy (i.e., BA rationale, assessment, activity scheduling, and strategies targeting avoidance), we dichotomized the responses to "*Wether or not they implemented at least one BA stratety to at least one client [yes/no]*". Chi-square tests were conducted to assess the association between: 1) group and wether or not they had at least one client with depression; and 2) group and wether or not they implemented at least one BA strategy to at least one client with depression. The percentages of participants in both training group who implemented at least one BA strategy to at least one client at pre- and post-training were calculated.

Lastly, Independent-sample t-tests using intent-to-treat analyses with last observation carried forward were conducted to examine differences in total satisfaction between the two training groups at the end of each training sessions. Several qualitative

feedback were extracted from the written responses, although systematic qualitative analysis were not conducted in this study.

Results

Participants recruitment and retention. Ninety-eight interested participants completed the consent form online. Of the 98 people who provided consent, 11 dropped out of the study before randomization and did not complete the baseline assessments. Before randomization, all participants were asked to provide their potential availability for at least one of the trainer-led training sessions. Only participants who provided availability for the trainer-led training sessions were randomly assigned to either the self-paced or trainer-led group. Seven participants were not able to provide availability for the trainer-led training. These participants automatically received the self-paced training but their data was excluded from the final analyses.

The remaining 80 participants were randomly assigned to either the live (N = 40) or self-paced group (N = 40). Three participants in the trainer-led group, however, dropped out before the training started without completing the baseline role play assessment. The final analyses were based on the 37 participants in the trainer-led group and 40 participants in the self-paced group. In terms of retention, 31 participants in the trainer-led group (83.8% retention rate) and 33 participants in the self-paced group (82.5% retention rate) completed the study. Chi-square test indicated no significant association between training type and completion, $\chi^2(1) = .023$, $p = .881$. For the complete flow of participants please refer to the consort diagram (Figure 1).

Demographic Characteristics. Baseline characteristics of the total sample are shown in Table 2. Participants were predominantly female (76.6%) and had a mean age

of 30.32 (SD = 6.09) years. In terms of race/ethnicity, participants identified themselves as White (71.4%), Black (7.8%), Non-White Hispanic (1.3%), East Asian (6.5%), South Asian (2.6%), South East Asian (1.3%), Middle Eastern (1.3%), Mixed (6.5%), and other (1.3%). All participants were graduate students in Clinical Psychology (54.5%), Counseling Psychology (14.3%), Social Work (11.7%), and Psychiatry Residency (19.5%) program. Although 102 directors of clinical training in nursing programs were contacted, none of the nursing students expressed interest to participate or completed the online consent form.

Of all participants, 75.4% of participants reported having less than 3 years of clinical experience. The average psychotherapy hours per week as reported by participants was 2.17 (SD = 1.04) hours. In terms of previous BA training and experiences, participants reported previously receiving very low (48.1%), low (40.3%), and average (11.7%) BA training. In terms of perceived BA knowledge, participants reported very low (29.9%), low (41.6%), average (27.3%) knowledge of BA. Only 1 participant (1.3%) reported having high knowledge of BA. Similarly for perceived BA skills, participants reported very low (32.5%), low (37.7%), average (27.3%) BA skills. Only 2 participants (2.6%) reported having high BA skills.

Independent-sample t-tests and chi-square analyses were conducted and no significant differences ($p > .05$) were found for all demographic characteristics, baseline BASA total and subscale scores, reported BA implementation, and reported confidence to use BA between the two training groups.

Participants Adherence to Training. Participants' attendance was collected in the beginning of each trainer-led training session. The attendance rates for the first,

second, third, and fourth session of the trainer-led training were 94.6%, 97.3%, 94.6%, and 86.5% respectively. The Articulate website where participants in the self-paced group accessed the self-paced modules recorded all participants who started and completed the self-paced modules. This data was used to calculate participants' attendance rates for this training group. The attendance rates for the first, second, third, and fourth session of the self-paced training were 92.5%, 95%, 85%, and 75% respectively. Chi-square tests indicated that the attendance for all four sessions was not significantly associated with the type of training the participants received ($p > .05$).

Within the trainer-led training group, 31 participants (83.8%) completed all 4 training sessions, 3 participants (8.1%) completed 3 sessions, 2 participants (5.4%) completed 2 sessions, and 1 participant (2.7%) completed 1 session. Within the self-paced group, 28 participants (70%) completed all 4 training sessions, 7 participants (17.5%) completed 3 training sessions, 3 participants (7.5%) completed 2 training sessions, and 2 participants (5%) never completed any of the self-paced training session. The mean number of sessions completed by participants in the trainer-led and self-paced training were 3.73 (SD = .693) and 3.48 (SD = 1.012) respectively. The difference between the two groups was not statistically significant, $t(75) = 1.278$, $p = .205$.

Trainers Adherence to Training. The trainer-led online training consisted of five main training activities: reviewing homework, didactic of core BA skills, modeling, practicing, and general discussion. The trainers in the trainer-led training led two different sessions each week and their adherence to the main training activities were recorded live by a study personnel. The number of minutes spent for each training activity was also recorded. Overall, both trainers completed almost all of the training

activities for all of the training sessions that they led. Only one trainer did not complete a practice session for one training session on Providing BA Rationale.

Independent-sample t-tests were conducted to compare the number of minutes spent for each training activity by the two trainers. Results indicated no significant difference on the number of minutes spent to review the previous week homework; $t(14) = 1.135$, $p = .275$. However, there were significant differences on the number of minutes spent on didactic, modeling, practice, and discussion ($p < .05$). In general, Trainer 1 spent significantly more minutes on practice while trainer 2 spent more minutes on didactic, modeling, and discussion. Please refer to Table 3 for detailed results.

BA Skills. All participants in both training group completed the pre-training role play assessment. At post-training, six participants in the trainer-led group and seven participants in the self-paced group did not complete the role play assessment. Mixed between-within ANOVA with intent-to-treat analyses using last observation carried forward were performed to evaluate the change in overall and core BA skills.

To evaluate the internal consistency of the BASA scores for each core skill and for total skill, Cronbach's α was calculated. The internal consistency for Total BASA scores, Providing BA Rationale subscale, BA Assessment Subscale, Activity Scheduling Subscale, and Strategies Targeting Avoidance subscale were α values = 0.912, 0.842, 0.673, 0.667, 0.797. These results indicated acceptable internal consistency particularly for Total BASA scores, Providing BA rationale scores, and Strategies Targeting Avoidance. However, the internal consistency for BA Assessment and Activity Scheduling were relatively lower.

The effect of trainers on total BASA scores across the two time periods was calculated to assess the potential for trainer effect. Mixed ANOVA indicated that the interaction between trainer and time on total BASA score was not significant , $F(1, 35) = .456$, $p = .504$, partial eta squared = .013 (Figure 2). The main effect of time across the two trainers was examined and indicated a statistically difference in total BASA score from pre- to post-training, $F(1, 35) = 46.419$, $p < .001$, partial eta squared = .570. Total BASA score for those receiving the training from Trainer 1 increased from M = 67.71 (SD = 19.04) at pre-training to M = 105.59 (SD = 25.92) at post-training. Similarly, total BASA score for those receiving the training from Trainer 2 increased from M = 68.30 (SD = 19.47) at pre-training to M = 99.35 (SD = 30.09) at post-training. The main effect of group was not significant, $F(1, 35) = .209$, $p = .650$, partial eta squared = .006.

Please refer to Table 4 for complete results on the change of total and subscale BASA scores. The total BASA score could range from 0 (*not at all competent*) to 168 (*extremely competent*). There was a statistically significant interaction between the training type and time on Total BASA scores, $F(1,75) = 5.762$, $p = .019$, partial eta squared = .071 (Figure 3). Participants in the trainer-led training group had a significantly greater increase in total BASA scores from pre-training (M = 68.02, SD = 19.01) to post-training (M = 102.22, SD = 28.04) compared to those in the self-paced training group, although participants in the self-paced training also had an increase from pre-training (M = 63.13, SD = 21.65) to post-training (M = 80.68, SD = 28.44) in total BASA scores.

The Providing BA Rationale subscale score could range from 0 (*not at all competent*) to 66 (*extremely competent*). There was a statistically significant interaction between the training type and time on Providing BA Rationale subscale scores, $F(1,75) =$

4.493, p = .037, partial eta squared = .057. Participants in the trainer-led training group had a significantly greater increase on this subscale from pre-training (M = 28.08, SD = 9.05) to post-training (M = 41.59, SD = 12.36) compared to those in the self-paced training group, although participants in the self-paced training also had an increase from pre-training (M = 27.00, SD = 10.38) to post-training (M = 33.48, SD = 13.10).

The BA Assessment subscale score could range from 0 (*not at all competent*) to 36 (*extremely competent*). There was a statistically significant interaction between the training type and time on BA Assessment subscale scores, $F(1,75) = 4.329$, p = .041, partial eta squared = .055. Participants in the trainer-led training group had a significantly greater increase on this subscale from pre-training (M = 10.08, SD = 4.39) to post-training (M = 17.00, SD = 8.19) compared to those in the self-paced training group, although participants in the self-paced training also had an increase from pre-training (M = 8.58, SD = 4.47) to post-training (M = 11.93, SD = 6.37).

The Activity Scheduling subscale score could range from 0 (*not at all competent*) to 30 (*extremely competent*). There was a statistically significant interaction between the training type and time on Activity Scheduling subscale scores, $F(1,75) = 11.771$, p = .001, partial eta squared = .136. Participants in the trainer-led training group had a significantly greater increase on this subscale from pre-training (M = 13.19, SD = 5.99) to post-training (M = 23.41, SD = 3.97) compared to those in the self-paced training group, although participants in the self-paced training also had an increase from pre-training (M = 13.35, SD = 5.01) to post-training (M = 18.93, SD = 5.57).

The Strategies Targeting Avoidance subscale score could range from 0 (*not at all competent*) to 36 (*extremely competent*). The interaction between the training type and

time on Strategies Targeting Avoidance subscale was not significant, $F(1,75) = .244$, $p = .623$, partial eta squared = .003. Thus, the main effect of time across the two groups was examined, which indicated a statistically significant difference in Strategies Targeting Avoidance subscale scores from pre- to post-training, $F(1,75) = 42.020$, $p < .001$, partial eta squared = .359. Strategies Targeting Avoidance subscale scores for those in the trainer-led group increased from M = 11.59 (SD = 6.13) at pre-training to M = 20.22 (SD = 8.53) at post-training. Similarly, Strategies Targeting Avoidance subscale scores for those in the self-paced group increased from M = 8.95 (SD = 6.66) at pre-training to M = 16.35 (SD = 9.62) at post-training. Furthermore, the main effect of group showed there was a statistically significant difference in Strategies Targeting Avoidance subscale scores between training types, $F(1,75) = 6.144$, $p = .015$, partial eta squared = .076.

Completer analyses were conducted to examine any potential differences with ITT with last observation carried forward. There was a statistically significant interaction between the training type and time on Total BASA scores, $F(1, 62) = 6.589$, $p = .013$, partial eta squared = .096. Participants in the trainer-led training group had a significantly greater increase on total BASA scores from pre-training (M = 67.1, SD = 19.55) to post-training (M = 108.1, SD = 26.36) compared to those in the self-paced training group, although participants in the self-paced training also had an increase from pre-training (M = 65.18, SD = 21.06) to post-training (M = 86.45, SD = 26.19).

There was a statistically significant interaction between the training type and time on Providing BA Rationale subscale, $F(1,62) = 4.996$, $p = .029$, partial eta squared = .075. Participants in the trainer-led training group had a significantly greater increase on this subscale from pre-training (M = 28.19, SD = 9.21) to post-training (M = 44.52, SD =

11.02) compared to those in the self-paced training group, although participants in the self-paced training also had an increase from pre-training (M = 27.64, SD = 9.93) to post-training (M = 35.48, SD = 12.46).

There was a statistically significant interaction between the training type and time on BA Assessment subscale, $F(1,62) = 4.590$, p = .036, partial eta squared = .069. Participants in the trainer-led training group had a significantly greater increase on this subscale from pre-training (M = 10.32, SD = 4.27) to post-training (M = 18.58, SD = 7.74) compared to those in the self-paced training group, although participants in the self-paced training also had an increase from pre-training (M = 8.97, SD = 4.19) to post-training (M = 13.03, SD = 6.03).

There was a statistically significant interaction between the training type and time on Activity Scheduling subscale, $F(1, 62) = 13.211$, $p = .001$, partial eta squared = .176. Participants in the trainer-led training group had a significantly greater increase on this subscale from pre-training (M = 17.68, SD = 6.73) to post-training (M = 23.81, SD = 3.94) compared to those in the self-paced training group, although participants in the self-paced training also had an increase from pre-training (M = 19.12, SD = 5.24) to post-training (M = 19.52, SD = 5.74).

The interaction between the training type and time on Strategies Targeting Avoidance subscale was not significant, $F(1,62) = .221$, $p = .640$, partial eta squared = .004. Thus, the main effect of time across the two groups was examined, which indicated a statistically significant difference in Strategies Targeting Avoidance subscale scores from pre- to post-training, $F(1,62) = 47.074$, $p < .001$, partial eta squared = .432.

BA Confidence. Mixed between-within ANOVA using intent-to-treat analyses with last observation carried forward were conducted to examine the change in self-reported confidence between the two training groups at five time points: baseline, post-session 1, post-session 2, post-session-3, and post-session 4 (post-training). Total confidence score was generated for each time point by adding the rated scores on the 4-item questionnaire. Total confidence score ranged from 0 (*did not try the skill*) to 20 (*very confident*) in implementing overall BA strategies. The subscale score ranged from 0 (*did not try the skill*) to 5 (*very confident*) in implementing core BA strategies.

The interaction between the training type and time on reported total confidence was not significant, $F(4,300) = .214$, $p = .916$, partial eta squared = .003 (Figure 4). The main effect of time indicated a statistically significant increase in reported total confidence across the five time points for both training groups, $F(4,300) = 13.795$, $p < .001$, partial eta squared = .155. This result indicated a large effect size on the change of reported total confidence for both groups across time. Altogether, the mean total confidence scores for both groups across time points were: baseline (M = 3.01, SD = 4.87), post-session 1 (M = 4.82, SD = 6.14), post-session 2 (M = 6.64, SD = 6.47), post-session 3 (M = 6.91, SD = 6.45), post-session 4 (M = 8.43, SD = 7.16). The main effect of group was not significant ($F(1,75) = .1.816$, $p = .182$), which indicated no difference between the two training groups on the change of reported total confidence. It should be noted, however, that the possible maximum total confidence score was 20. Thus, although there was a significant steady increase of total confidence score across time, the reported total confidence score at post-training was still considerably low (8.43 out of 20). Moreover, the interaction between the training type and time on reported confidence

on each BA core skill was examined although no significant interaction was found on any of the subscale ($p > .05$).

BA Implementation. Chi-square analyses indicated that there was no significant association ($p > .05$) between training group and the number of participants who reported treating at least one depressed client at pre- and post-training. At pre-training 78.4% of participants in the trainer-led group reported treating at least one depressed client in the past week and 87.5% of participants in the self-paced group reported treating at least one depressed client in the past week. At post-training, the percentages of participants who reported having at least one depressed client in the past week were 94.6% and 82.5% for trainer-led and self-paced group respectively. No significant association was found between the type of training and the number of participants who reported implementing at least one BA strategy to at least one client ($p > .05$) at pre- and post-training. The percentages of participants who reported BA implementation were 29.7% and 27.5% for trainer-led and self-paced training respectively at pre-training. At post-training, the percentages of participants who reported BA implementation were 64.9% and 55% for trainer-led and self-paced group respectively.

BA Training Satisfaction. Overall, participants completed the TSQ at four time points and each TSQ assessed participants satisfaction towards the specific training session that they just completed. Total satisfaction score was generated for each time point by adding the rated scores on the 6-item quantitative satisfaction questions completed by both groups. Total satisfaction score ranged from 6 (*not satisfied at all*) to 30 (*completely satisfied*) towards the training sessions.

Independent-sample t-tests using intent-to-treat analyses with last observation carried forward were conducted to examine differences in total satisfaction between the two training groups at the end of each training sessions. Overall, there were no significant differences (all $p > .05$) on total satisfaction between the two groups for all four training sessions (Table 5). The mean total satisfaction scores for participants in the trainer-led group were: post-session 1(M = 25.84, SD = 3.40), post-session 2 (M = 24.73, SD = 4.00), post-session 3 (M = 24.73, SD = 3.81), post-session 4 (M = 25.57, SD = 3.30). Whereas the self-paced group reported: post-session 1 (M = 25.30, SD = 3.11), post-session 2 (M = 25.50, SD = 2.81), post-session 3 (M = 25.05, SD = 2.91), post-session 4 (M = 26.13, SD = 3.17). Thus, in general participants reported high satisfaction towards the BA training type (either trainer-led or self-paced) that they received.

At the end of each training session, participants in the trainer-led group also completed 6 quantitative questions to assess their satisfaction towards the unique components of the trainer-led format (e.g., modeling, practice, feedback). Total satisfaction score towards trainer-led format was generated for each time point by adding the rated scores on the 6-item quantitative satisfaction questions. Total satisfaction score ranged from 6 (*not satisfied at all*) to 30 (*completely satisfied*) towards the BA trainer-led sessions. The mean total satisfaction scores toward trainer-led format reported by participants in the trainer-led group were: post-session 1 (M =, 24.05 SD = 3.86), post-session 2 (M = 24.14, SD = 4.12), post-session 3 (M = 23.70, SD = 4.01), post-session 4 (M = 24.46, SD = 3.90). Overall, participants in the trainer-led group reported high satisfaction at the end of all four sessions towards the unique component of their training,

which included live didactic, modeling, practice, feedback from trainer and other trainees, and the webinar features.

Participants in the self-paced group also completed 1 quantitative question to assess their satisfaction towards the self-paced presentation. Satisfaction score ranged from 1 (*not at all satisfied*) to 5 (*completely satisfied*). Overall participants reported high satisfaction towards the self-paced materials for all training sessions: post-session 1 (M = 4.62, SD = .705), post-session 2 (M = 4.60, SD = .632), post-session 3 (M = 4.50, SD = .641), post-session 4 (M = 4.55, SD = .552).

Formal qualitative analysis was not conducted in this study. However, participants qualitative responses on the three questions were examined and different important topics and suggested changes will be highlighted in this section. Overall, we asked participants to answered three qualitative questions to provide feedback on: 1) training content that was not helpful; 2) suggested changes for future BA online training; and 3) general feedback on the training. Participants complete responses on the three questions are presented on Tables 6, 7, and 8. Not all participants provided responses to the qualitative questions.

In terms of the training components that were not helpful, participants provided mixed feedback on the training length. Some people reported that the training time, particularly the didactic portion was too "long winded" and suggested that didactic should be presented separately outside the trainer-led training session (e.g., "*Much too long winded. the didactic portion should not be done live and should instead be made into a video that can be viewed at any time. Videos are faster and more succinct*"). Others, however, said that the training time might be too short to help them understand

the discussed BA strategies (e.g., "*Don't know that I completely grasped the concept in the timeframe allotted*"). Several participants also suggested presenting more examples from real-life clients to help them understand the BA strategies (e.g., "*Going over more examples would have been helpful. Especially with different types of clients who might face different obstacles, etc*.").

In terms of suggested changes, there were also some mixed feedback particularly on active versus passive learning strategies. While some participants appreciated having the chance to practice the skills in session (e.g., "*A briefer introduction with more practice examples*"), others preferred to have more didactic and discussion time (e.g., "*I enjoyed the didactic information so I would be fine with having more of it*"). Some participants in the self-paced group also suggested having more interactive learning in the modules (e.g., "*Make it more interactive. Watching powerpoint slides online is very passive -- it's tempting to disengage and do something else online while just listening to the content*"). We also received general suggested changes on the online technology, such as improved audio quality for both self-paced and trainer-led training.

When asked to provide general feedback on the BA online training, participants provided both positive feedback and areas of improvement for future training. Some participants perceived the training as highly organized (e.g., "*This is the most organized online training I've ever participated in...ever*"), appreciated the reverse order of presenting BA strategies (e.g., "*Awesome, and helpful to start to with avoidance, the most difficult topic*"), and said that the training encouraged them to implement BA with future clients (e.g., "*This has been a really helpful course so far, and has gotten me thinking about BA with all of my patients. Even if I'm not using BA interventions this week with my*

patients, it's helping me with conceptualization and treatment planning down the line"). Other participants also provided less positive general feedback on the training such as the lack of theoretical discussion on BA (e.g., "*More reiteration of the theoretical reasons (just a sentence or two) for the use of the skills may help internalize the skills better*"), the slow pace and repetitive information presented in the training (e.g., "*the information seemed to somewhat repetitive and slow*"), and the lack of clarity on some of the training content (e.g., "*The difference between this unit and the previous two units was less clear than I would have liked*").

Discussion

Research that examines effective and efficient psychotherapy training strategies is important to improve EBPI dissemination from research to practice. Existing research findings indicated that psychotherapy training consisted of active learning strategies may be more effective to improve therapists' competency (Herschell et al., 2010). This current study aimed to evaluate the efficacy of an online, trainer-led BA training consisted of active learning strategies when compared to an online, self-paced BA training that relied mainly on didactic presentation. Changes in trainees' BA skills, implementation of BA strategies, confidence, and satisfaction with training were the four proxy indicators of training success. Overall, findings indicated that both trainings resulted in significant increases in BA skills although those who received trainer-led BA online training showed larger improvements than participants in the self-paced BA online training. Comparable significant increases in self-reported implementation and confidence were also found in both training groups. Lastly, participants in both groups reported high satisfaction towards the online BA training that they received.

Feasibility

Recruitment process was completed in one month period, which was faster than the intended 2-month recruitment time. Delivering the recruitment announcement via several listserves enabled us to reach a large number of graduate students in a timely manner with no-cost. Emailing the directors of clinical training directly and requesting them to distribute the study announcement to their students was found to be an effective and efficient strategy for recruitment. This relatively short period of recruitment time may indicate a high interest among graduate students in mental health fields to receive EBPI training. Since participants in the study were from diverse geographical location in the United States, the online consent process was found to be a secure and accessible option. The majority of participants completed the online consent form without assistance from the study personnel and a small number requested additional discussion via email regarding the detail of the study before completing the online consent form.

The number of participants from targeted graduate programs was disproportionate although the number of contact made to listserves and directors of clinical training from all targeted graduate programs were kept similar. More than half of the participants (54.5%) were from Clinical Psychology program. The second largest group of participants came from psychiatry residency programs (19.5%). This might indicate a higher interest from students in these two programs to receive additional EBPI training such as BA. Recruitment of graduate students in nursing programs was not successful. While 102 nursing programs in the country were contacted, none of the students expressed interest and completed the online consent form. This might be due to a wider area of nursing and learning EBPIs may not be the focus of all nursing students. One

possible strategy to recruit nursing graduate students may be by contacting those who are specifically in training to be psychiatric nurses.

Of the 98 people who completed the consent form, 11 participants withdrew their participation before randomization and baseline assessment. One potential explanation of early dropped out was due to scheduling issue. There was a one month waiting period between the end of recruitment process and baseline assessment. Recruitment occurred at the end of the Fall semester and baseline assessment occurred in the beginning of Spring semester. Anecdotally, among those who dropped out before baseline, some reported having a limited amount of time to fit the BA training to their new Spring semester schedule, which they did not yet have when completing the consent form.

The retention rate for the trainer-led training and self-paced training were 83.8% and 82.5% respectively, which were comparable to other psychotherapy training studies with similar design (Dimeff et al., 2009; Rawson et al., 2013). Findings also showed that the retention rates between the two training groups were comparable. The majority of participants who dropped out before the study were completed typically reported time constraint as the barrier to continue their participation. This reason was expected since participants were graduate students with diverse responsibilities and adding continuing education training outside of their graduate school training might be challenging. In terms of attendance, the majority of participants in trainer-led (83.8%) and self-paced (70%) training completed all four training sessions. This finding was promising and indicated that once participants started the online BA training, they typically finished it.

The online technology used in this study showed that EBPI online training had several benefits. First, this strategy was cost-effective considering the limited funding in

this study. The materials for the self-paced training were first created using Microsoft Power Point. We used Articulate Presenter software to incorporate the verbal didactic lecture to the training slides, which cost approximately US$1000. This was a one-time investment and the software could be repeatedly used to create other training materials for future studies. The self-paced training materials were published using Articulate Online to provide access to participants in different geographical location. The subscription cost was US$200/month. However, since the study had less than 100 participants and the training period was within one month, we were able to use the free-trial version of the Articulate Online.

For the trainer-led training, we relied on BA trainers who were willing to volunteer their time for the study. Access to the webinar to deliver the trainer-led training was sponsored by Practice Ground learning community. Although utilizing free-trial services and relying on sponsorship allowed us to conduct the study with very low cost and provide free training for participants, this strategy may not be sustainable. Thus, data from this pilot trial will be used as a foundation to apply for future research grants. Funding will be used to improve online training quality, add more training features, pay trainers, and subscribe to webinar and website to deliver the training.

Overall, the online technology used in the live and self-paced training was quite satisfactory. During the training period, there were no technical problems that greatly hindered the training to the point where the training sessions had to be postponed or canceled. However, there were some minor difficulties that somewhat interrupted the training process. For the trainer-led training, there was one session where the time for the training session was not entered correctly by the webinar operator. As a result, the trainer

was not able to access the webinar chat room. As an alternative, we used an online software that enabled the trainer to share her computer screen with participants. Thus, although the training session was not conducted through the webinar chat room, it was still executed successfully.

Second, there was one session where the video feature did not work properly so trainees were not able to see the trainer's face and only heard his voice. In the same session, the trainer got disconnected from the webinar chat room and conference call and took a few minutes before he was able to reconnect to the webinar. This situation, unfortunately, lowered the amount of time for practice. Unfortunately, the cause of these particular technological problems remained unclear to our research team. Third, sometimes the background noise from the trainees' phone disrupted the communication in session. In future studies, it might be beneficial to ask the trainees to do the trainer-led training from a place with less background noise.

For the self-paced training, there were a few minor technological problems that we came across. First, there were several participants who had difficulties accessing the links to the self-paced modules. Several strategies that seemed to be successful to solve this problem were: 1) encouraging participants to try several different internet browsers; 2) asking participants to copy and paste the links that we sent via email, instead of directly clicking the links to access the modules; and 3) asking participants to de-activate their pop-up blocker on the internet browser. Second, several participants in the self-paced group reported having difficulties hearing the audio guide. Others also said that the slides froze in the middle of the presentation, which required them to re-start the entire presentation. Unfortunately, it was unclear if the problems were due to the Articulate

system or the personal computer technology that the participants used. Future studies should consult with the IT team to minimize the occurrence of these technological problems.

As an extension of the previous BA training study (A. Puspitasari et al., 2013), this was the first study that implemented the train-the-trainer model. Findings from this study indicated the potential of training other trainers effectively and in a relatively short period of time (i.e., four 60-minutes sessions delivered within 1-month period). Overall both trainers adhered to the training protocol and conducted the five main training activities on each session. Only one trainer did not have enough time to lead the practice on one out of eight training sessions conducted. In terms of the number of minutes spent on each training activity, there were significant differences on time spent on didactic, modeling, practice, and discussion. One trainer spent more time on practice while the other spent more time on didactic, modeling, and discussion. However, these differences did not seem to influence outcome since no significant differences were found on the change of BASA skills between participants who received the training from Trainer 1 and 2, which indicated that trainer effect was controlled.

Changes in BA skills

Findings from this pilot study indicated that trainer-led online BA training outperformed self-paced online BA training on overall BA skills improvements. It should be noted, however, that the effect size on this compared total BA skills change was only moderate. In terms of the effect of training groups on specific core BA skills, results showed that the trainer-led online training also outperformed the self-paced online training on Providing BA Rationale, BA Assessment, and Activity Scheduling subscales.

No training group effect was found for Strategies Targeting Avoidance subscale. Overall, participants showed an improvement from pre to post on providing strategies to target avoidance. Based on these findings, the first hypothesis that the trainer-led online training would produce greater increases on total BA scores was, therefore, supported.

When we compared participants' BA skills change of the trainer-led online training in this study and the previous BA online training (A. Puspitasari et al., 2013), the results were comparable. The effect size (Cohen's d) on the increased total BASA score from pre to post training in this study was 1.427, whereas the previous trainer-led BA training had an effect size of 1.124. This finding is promising and an indication that the large effect size on overall BA skills improvement in the trainer-led training could be replicated. Furthermore, although participants in the self-paced training also showed improvements on total BASA score, the effect size on the change of the score from pre to post training was relatively smaller (Cohen's d = 0.69).

The results in this study were consistent with previous EBPI training studies that found training with active learning strategies produced better outcomes than the control conditions (Miller, Yahne, Moyers, Martinez, & Pirritano, 2004; Sholomskas et al., 2005). There were, however, several logistical differences between the trainer-led BA online training and these previous EBPI training packages. First, the training conditions utilizing active learning strategies in both of these training studies were delivered in-person in a workshop format. Second, both studies included multiple consultation sessions after the workshop where participants received more practice and feedback regarding the newly learned therapeutic skills. On the other hand, all contact in this current BA training study occurred online and total training time led by the BA trainers

was considerably shorter than EBPI training in the previous two studies. This is important to highlight since developing training strategies that maximize outcome yet minimize resources is desirable from a dissemination stand point.

In the development of this BA training, our research team tried to implement some strategies that may be influential for BA skills improvement in a relatively short period of training time. First, based on previous findings on the importance of active learning strategies, we tried to limit the didactic (passive learning) portion and maximize active learning strategies such as modeling, practice, and feedback. Second, since the main focus of this online training is to increase BA competence, we minimized the time spent on theory and research behind BA. Instead, training time was spent to focus on defining each BA core strategies concretely and behaviorally. Core BA strategies were broken down into specific micro-skills to help trainees learn concrete steps to take when implementing a core BA strategy. For instance, in implementing activity scheduling, participants learned five micro-skills: 1) collaboratively work with client to identify activities to work on; 2) consider task difficulty and break assignments into smaller parts; 3) schedule activity concretely; 4) identify obstacles; and 5) identify solutions to obstacles. After explaining these micro-skills through didactic, participants immediately observed the trainer modeled the skills and practiced the skills with each other where they also received immediate feedback on the practiced skills from both the trainer and other trainees. We hypothesize that these training strategies may be necessary for skill building and to minimize the need for long term consultation. Therefore, future studies should examine if there would be a significant added benefits by including long-term supervision in BA training.

Although the trainer-led BA online training outperformed the self-paced online training, results from this study did not minimize the impact of the self-paced online training on increasing BA skills. There was evidence that even receiving a shorter, less interactive, self-paced BA training could improve participants' competency in implementing core BA strategies to a hypothetical depressed client. This finding is consistent with a study by Dimeff and colleagues (2009) that self-paced training was effective although improvement on skills was limited. To learn BA, self-paced training may be a viable initial strategy but should be followed by other training strategies that allow further active learning. Since the self-paced training in this study only included didactic presentation, adding more interactive features (e.g., case vignette, quizzes that prompt participants to choose BA skills to implement) to the training modules may further improve skills.

When the amount of improvement from both training groups was further examined, results indicated that, on average, participants in the trainer-led training group achieved 40% at pre and 61% at post of potential maximum total BASA score. Those in the self-paced group achieved 38% at pre and 48% at post of potential maximum total BASA score. This finding indicated that even when improvement on BA skills was observed in both groups, participants' scores only fell within moderate competency at best. At this point, the sufficient competence necessary to produce actual clinical outcome remains unknown. Since this current version of BASA is still in a developmental phase, there was not yet a benchmark on expected or desired total BASA score after training that may lead to client's improvements.

Reported Confidence in Implementing BA Strategies

The second hypothesis predicting that participants in the trainer-led training would report a greater increase in confidence to implement BA compared to the self-paced training was not supported. Results showed that there was no training effect and participants overall reported a significant increase of reported confidence from pre- to post-training. This finding was consistent with a previous online CBT training study that reported a significant increase in reported confidence to implement the learned therapeutic skills (James Bennett-Levy, Hawkins, Perry, Cromarty, & Mills, 2012).

Although participants overall reported a gradual increase in total confidence scores, reported total confidence remained relatively low at post-training. The reported low confidence score even after training might be due to the way the questionnaire was designed. In the self-reported confidence questionnaire, the Likert scale ranged from 0 to 5, however 0 indicated that participants did not try the skills. Since implementation of BA skills was relatively low across groups, many participants rated their confidence as 0 even at post because they did not have the opportunities to implement the BA strategies yet. When the mean total confidence score was calculated only for participants who tried the BA skills, there was a gradual increase of total confidence score and confidence was higher at post training compared to the initial data where we included participants who did not try the skills.

Reported BA Implementation

The third hypothesis was not tested exactly as planned for the reasons discussed previously (please see Data Analysis section). Instead, modifications on analyzing the collected self-reported implementation data were deemed appropriate. Overall, significant association between the type of training and the number of participants who reported

implementing at least one BA strategy with at least one client was not found. Data indicated that the percentages of participants in both trainer-led and self-paced group were comparable at post-training. At post-training, we found higher percentages of participants who reported BA implementation compared to pre-training. While this increase was encouraging, even at post-training approximately only half of the participants in each group reported using BA strategies in their actual clinical practice.

There were several reasons that potentially influenced low implementation of BA strategies during the training period. First, participants were graduate students who, overall, reported a low number of clients that primarily suffered from depression. Second, the majority of participants in the study reported low BA training and experiences at baseline, which might limit their ability to implement BA strategies during the training period since they had not received the full training. Third, the core BA strategies were presented in reverse order. The order of strategies discussed was strategies targeting avoidance, activity scheduling, BA assessment, and ended with providing BA rationale. On the other hand, in actual clinical practice typically BA treatment is started with providing BA rationale and assessment followed by activity scheduling and strategies targeting avoidance. Thus, the delay on training sessions that covered BA strategies that were typically presented earlier in clinical practice might influence lower implementation during the training period. We conclude that measurement of implementation might not be the best indicator of training outcome when assessed during and immediately after the BA training.

Satisfaction towards Online BA Training

The fourth hypothesis predicting that participants in the trainer-led training would report a significantly higher training satisfaction compared to the self-paced training was not supported. Results indicated that there was no training effect and both groups reported very high satisfaction towards the training that they received. High satisfaction towards the trainer-led online training was consistent with the previous BA online training studies (A. Puspitasari et al., 2013). Overall, participants reported high quality and usefulness of the training, that the online training was helpful, increased their intention to incorporate BA strategies in their clinical practice, and that the length of training and Power Point slides were satisfying.

Participants in the trainer-led training group also reported high satisfaction on the active learning strategies such as modeling, practice, and feedback that they received in each session. These participants overall also reported high satisfaction towards the webinar features of the trainer-led training such as the chat room. Participants in the self-paced group also reported high satisfaction towards the self-paced training features such as the ability to complete the modules on their own time. Overall, this pilot data indicates that the online training format was well-received by participants and rated with high satisfaction.

Limitations and Future Recommendations

The first limitation of the study was related to the hybrid research design that might improve external validity but somewhat compromised the internal validity of the findings. While the study consisted of features found in efficacy studies (e.g., random assignment and comparative condition), there were aspects of the study that were not highly controlled. For instance, the amount of training time between the groups was

different. Those in the trainer-led training group received approximately 360 minutes of training time whereas participants in the self-paced training received approximately 160 minutes of training time. Thus, the results may have been impacted by the amount of time spent in training, which was not controlled across conditions. Additionally, it is important to examine the role of active learning strategies on outcome variables to understand if these specific features of the trainer-led training are responsible for maximizing outcome. Future studies should include stricter control condition and assure equivalence on potentially confounding variables.

While improvements on BA skills as a result of the online BA training was encouraging, this findings were based on performance on role play assessment, which limited our ability to understand the impact of training on actual clinical practice. There were many benefits of using role play assessment as a proxy indicator of the impact of training on therapists' competency, such as the ability to observe skills in a short period of time, lower the risk of violating patients' privacy, and increasing the ability to prompts specific therapeutic skills to be implemented. However, the correlation between role play assessment scores and actual competency in clinical practice remained unknown. Future studies should assess the impact of online BA training on therapists' competency in implementing BA strategies with actual clients. Additionally, it is important to examine whether increased competency after training will predict clients' improvements.

The third limitation of the current study was the absence of follow-up data on the studied outcomes. It is important to examine the effectiveness of BA online training in maintaining participants' skills and sustaining implementation of BA strategies in clinical practice. While improvements in BA skills were observed at post-training, it remained

unknown whether this level of competency would be retained long term. A previous review concluded that skills tend to deteriorate after a few months if there was no follow-up contact to sustain outcomes (Herschell et al., 2010). Since the current BA training did not include any follow-up training sessions or consultation with participants, skills might decrease after some time. Future studies should include long-term follow-up to examine BA skills maintenance.

Lastly, since the BASA used in this study was still in development no benchmarking data were available. As previously mentioned, although improvement on total BASA score was observed it was unclear if reaching 60% of the potential maximum score was adequate to conclude that participants met the expected competency. Future studies benchmarking studies are needed to examine the sufficient BASA scores that need to be achieved to predict successful outcome in actual clinical practice. Additionally, it is also pertinent to continue the development of the BASA by assessing its validity and reliability. Since the sample in this study were only graduate students with limited training and experience in BA, future studies should examine how different samples (e.g., BA expert, BA clinicians) perform on the BASA to further validate this assessment method. Lastly, to analyze the construct validity of the BASA, future studies should analyze the degree to which BASA scores are correlated with other BA competency measure such as the Quality of Behavioral Activation Scale (S. Dimidjian, Hubley, Martell, Herman-Dunn, & Dobson, 2012).

Conclusion

This randomized pilot trial provided some evidence on the efficacy of trainer-led BA online training when compared to the self-paced BA online training, particularly in

improving overall and specific BA skills. However, no differential training effect was found on self-reported implementation and confidence and both training groups reported increased number of clients whom they delivered BA strategies with and reported increased confidence throughout the training when they implemented BA strategies. Participants also reported high satisfaction towards the training that they received and no significant differences were found on satisfaction scores between the two training conditions.

The relatively short recruitment process potentially indicated that there was a high interest to receive BA training at least among graduate students in mental health fields. Recruitment strategies were feasible to be implemented in the future larger trials. This study also showed the feasibility of train-the-trainer model and that the trainer-led BA online training could be delivered by trainers with several years (around 5-7 years) of BA training and practice. This also showed that training efficacy was still observed even when training was not delivered by a BA expert who led the training in previous studies.

Future improvements need to be implemented to address limitations in this current study. First, longer follow-up is needed to assess the efficacy of the online BA training to maintain BA skills. Second, larger trials should include other outcome measures to assess training success such as assessment of therapist behavior in session or clients' outcome. Third, further development of the BASA to assess its validity and reliability is needed. Without minimizing the limitations of the current pilot trial, it was concluded that findings from the study were encouraging and showed the promising efficacy for the trainer-led BA online training as a dissemination strategy that was effective, affordable, and accessible.

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Figure 1: Consort Diagram

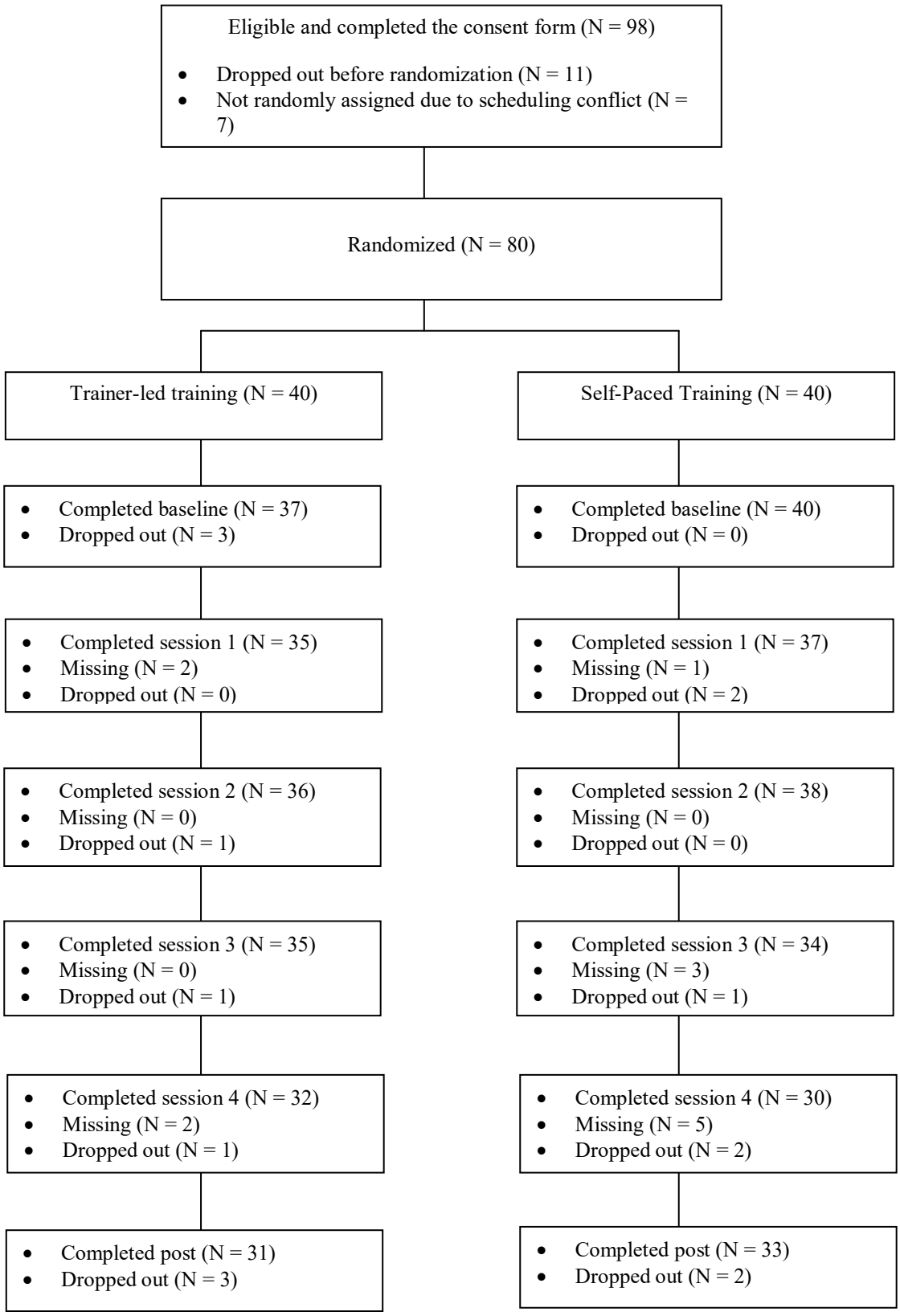

Figure 2: Time x trainer interaction for total BASA score

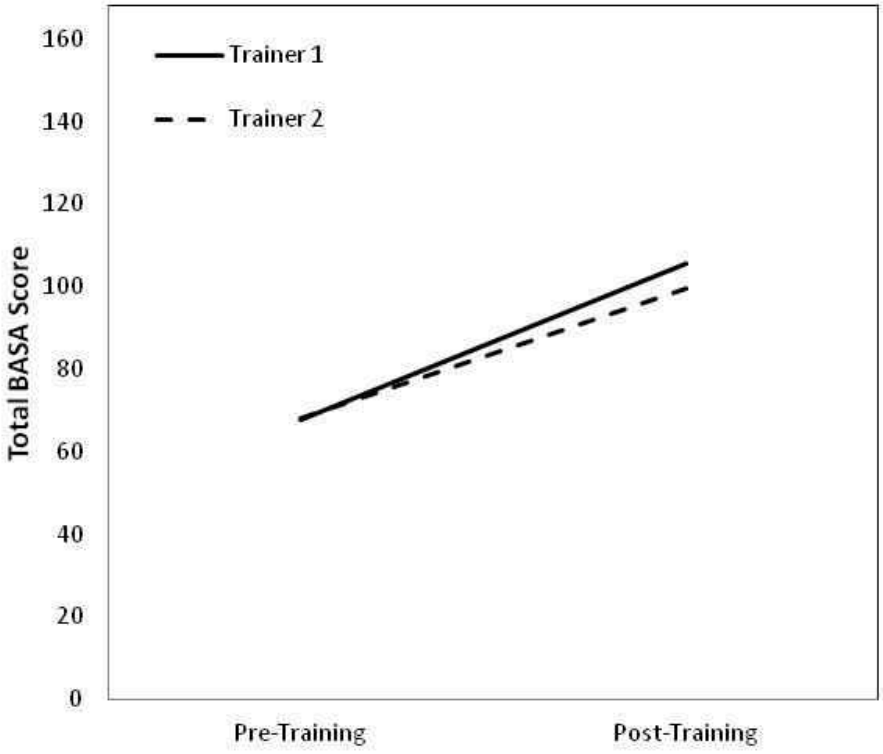

Figure 3: Time x group interaction for total BASA score

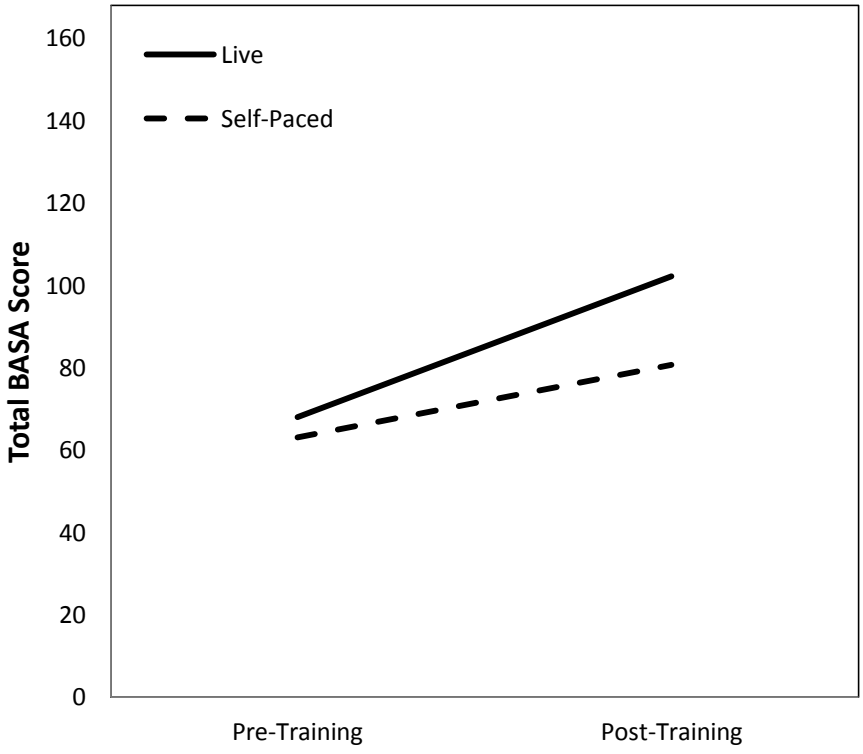

Figure 4: Time x group interaction for reported confidence to provide BA

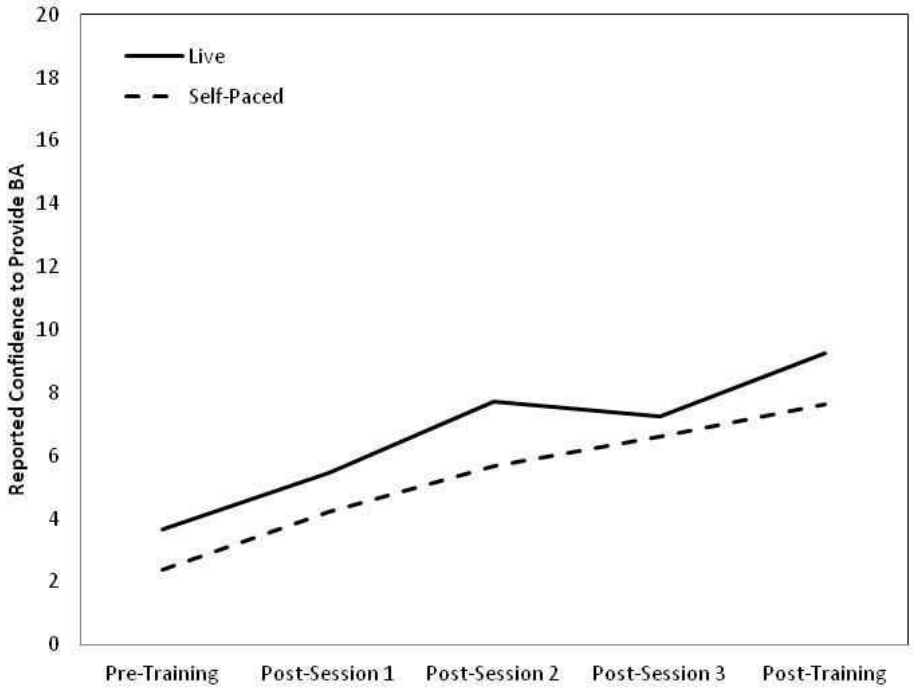

Table 1

Inter-rater Reliability Score (ICC) Between Study Coders and BA Expert Coder

	Coder 1	Coder 2	Coder 3
Total	0.929	0.948	0.914
Providing BA Rationale	0.922	0.942	0.923
BA Assessment	0.936	0.954	0.889
Activity Scheduling	0.944	0.984	0.873
Strategies Targeting Avoidance	0.911	0.888	0.908

Table 2
Characteristics of Participants

Characteristic	All Participants N (%)	Trainer-led training N (%)	Self-Paced Training N (%)
Demographic			
Age (M±SD)	30.32±6.09	30.95±6.08	29.83±6.12
Female	59 (76.6)	27 (73)	32 (80)
Male	18 (23.4)	10 (27)	8 (20)
Race or ethnicity			
White	55 (71.4)	24 (64.9)	31 (77.5)
Black	6 (7.8)	2 (5.4)	4 (10)
Non-White	1 (1.3)	1 (2.7)	-
Hispanic			
South Asian	2 (2.6)	1 (2.7)	1 (2.5)
Middle Eastern	1 (1.3)	-	1 (2.5)
East Asian	5 (6.5)	3 (8.1)	2 (5.0)
Southeast Asian	1 (1.3)	1 (2.7)	-
Native American	-	-	-
Pacific Islander	-	-	-
Other	1 (1.3)	1 (2.7)	-
Mixed	5 (6.5)	4 (10.8)	1 (2.5)
Graduate Program			
Clinical Psychology	42 (54.5)	20 (54.1)	22 (55)
Counseling Psychology	11 (14.3)	6 (16.2)	5 (12.5)
Social Work	9 (11.7)	3 (8.1)	6 (15)
Psychiatry Residency	15 (19.5)	8 (21.6)	7 (17.5)
Clinical			
Clinical experience			
1 year	29 (37.7)	12 (32.4)	17 (42.5)
2 years	16 (20.8)	6 (16.2)	10 (25)
3 years	13 (16.9)	7 (18.9)	6 (15)
4 years	9 (11.7)	6 (16.2)	3 (7.5)
5 years	9 (11.7)	6 (16.2)	3 (7.5)
≥ 6 years	1 (1.3)	-	1 (2.5)
Weekly Psychotherapy (M±SD Hours)	2.17±1.04	2.19±1.05	2.15±1.05
Previous BA Training			
Very low	37 (48.1)	20 (54.1)	17 (42.5)
Low	31 (40.3)	14 (37.8)	17 (42.5)
Average	9 (11.7)	3 (8.1)	6 (15)
High	-	-	-
Very high	-	-	-

BA Knowledge			
Very low	23 (29.9)	11 (29.7)	12 (30)
Low	32 (41.6)	15 (40.5)	17 (42.5)
Average	21 (27.3)	11 (29.7)	10 (25)
High	1 (1.3)	-	1 (2.5)
Very high	-	-	-
Reported BA Skills			
Very low	25 (32.5)	11 (29.7)	14 (35)
Low	29 (37.7)	13 (35.1)	16 (40)
Average	21 (27.3)	12 (32.4)	9 (22.5)
High	2 (2.6)	1 (2.7)	1 (2.5)
Very high	-	-	-

Table 3
Observed total number of minutes spent on trainer-led training activities

	Trainer 1 Mean (SD) n = 8	Trainer 2 Mean (SD) n = 8	t	*p*
Homework Review	12.75 (2.92)	15.75 (6.89)	1.135	.275
Didactic	17.75 (5.09)	25.50 (7.01)	2.530	.024
Modeling	15.00 (3.25)	20.13 (4.26)	2.706	.017
Practice	29.50 (6.16)	12.88 (6.94)	5.067	<.001
Discussion	4.63 (2.20)	10.63 (6.63)	2.429	.029

Table 4

BASA total and subscale scores

	Pre-Training			Post-Training				
	Total	Live	Self-Paced	Total	Live	Self-Paced	Interaction (F)	η^2_p
	(n = 77) Mean (SD)	(n = 37) Mean (SD)	(n = 40) Mean (SD)	(n = 77) Mean (SD)	(n = 37) Mean (SD)	(n = 40) Mean (SD)		
Total BASA	65.49 (20.44)	68.03 (19.01)	63.13 (21.65)	91.03 (30.08)	102.22 (28.04)	80.68 (28.46)	5.762*	.071
Providing BA Rationale	27.52 (9.71)	28.08 (9.05)	27.00 (10.38)	37.38 (13.31)	41.59 (12.36)	33.48 (13.10)	4.493*	.057
BA Assessment	9.30 (4.46)	10.08 (4.39)	8.58 (4.47)	14.36 (7.68)	17.00 (8.19)	11.93 (6.37)	4.329*	.055
Activity Scheduling	13.27 (5.46)	13.19 (5.99)	13.35 (5.01)	21.08 (5.33)	23.41 (3.97)	18.93 (5.56)	11.771*	.136
Strategies Targeting Avoidance	10.22 (6.50)	11.59 (6.13)	8.95 (6.66)	18.21 (9.31)	20.22 (8.63)	16.35 (9.62)	.244	.003

Table 5
Reported total satisfaction on online BA training

	Trainer-led training Mean (SD) n = 37	Self-Paced Training Mean (SD) n = 40	t	*p*
Total Satisfaction	110.86 (12.29)	101.98 (9.94)	.437	.663
Session 1: Strategies Targeting Avoidance	25.84 (3.40)	25.30 (3.11)	.724	.471
Session 2: Activity Scheduling	24.73 (4.00)	25.50 (2.81)	.983	.329
Session 3: BA Assessment	24.73 (3.81)	25.05 (2.91)	.416	.678
Session 4: Providing BA Rationale	25.57 (3.30)	26.13 (3.17)	.755	.453

Table 6:
Qualitative feedback on training content that was not helpful

Was there anything about the training content that was not helpful?	Session	Group
Unclear guidelines on when to use what and for how long - e.g., when should the 6 micro-skills be implemented? Is it supposed to take the full session? Multiple sessions?	1	1
I got slightly confused with the problems the role-play patient had only because I couldn't hear everyone on the phone before my turn so I was trying to play catch up.	1	1
Much too long winded. the didactic portion should not be done live and should instead be made into a video that can be viewed at any time. Videos are faster and more succinct.	1	1
I would have preferred a copy of the powerpoint slides rather than a PDF so I could have taken notes directly on the content pages.	1	1
Don't know that I completely grasped the concept in the timeframe allotted.	1	1
I did not know what to expect for this class (how many other students, content, that role-plays would be involved, etc). Not a huge deal for me but may have been annoying for others to not know what to expect; perhaps some sort of syllabus would be helpfu at the outset of the study?	1	1
I thought there should have been more of a discussion about the theory of BA. After the first couple of slides, I	1	2

literally thought out loud, "Really, that's it?"		
Discussing triggers for avoidance was helpful. I enjoyed the BA catch phrases and can see them being very useful in session. Also connecting the smaller with the client's larger goals was also helpful in figuring out how to target avoidance.	1	2
Seemed pretty good. A couple of real client examples might have been nice, as in my experience avoidance seems all well and good to deal with in the abstract, but in practice it can be so, so hard - so, examples where dealing with the avoidance took a nuber of tries/steps.	1	2
More examples of phrases, sentences, etc that can be used to enact these strategies	1	2
The strategies targetting avoidance were helpful. I see the rational for "acting when you don't feel like acting" but am a bit unclear on how to implement this skill (other than the discussion of when we do things we don't want to).	1	2
No. I just think it would be better if it were more detailed.		
I felt that the content was fairly basic, and I practice most of these techniques already, however, I realize that the this initial phase is likely to be simplistic in order for all students to be on the same page.	1	2
After 8 minutes, I could no longer hear the speaker. I only saw the slides changing, but with no audio.	1	2
no all of it was helpful. perhaps an example of the progression of the avoidance talk would be good to see. i.e " yes	1	2

but it is hard for me to make a plan..." ect		
This information was mostly not new to me. Seemed like just a summary of the BA chapter.	1	2
Just a couple of slides where the narration did not go much beyond on what was already on the slides. This was rare, however, and very minor.	1	2
everything was helpful, and I understand the rationale of staring here first -- however, it is a little hard to apply without the other pieces of BA.	1	2
I felt like I could anticipate my patients saying " But HOW do I do things when I don't feel like it", there was mention that we would find them "alternate coping" strategies instead of avoiding, but it turns out we were only going to say "Hey, you should't avoid, even though it feels natural and isn't in alignment with your values". I can just see them asking "Okay, but HOW? How do I make myself get up and go when I don't feel like it?" I find myself addressing this with motivational interviewing when trgeting avoidance isn't working.	1	2
Skill 5 was confusing. We didn't get to go through it in detail in any of the role-plays.	2	1
Seemed like less material to cover this time, didactic portion went quickly	2	1
appreciate the interactive process in using real-life, practical examples from student participants.	2	1
I wish I had a copy of the slides to review and use to prepare for sessions.	2	2

The content was very basic. I did not learn much from this week's session.	2	2
Sometimes it was a bit repetitive. Also, providing handouts with this material for future reference would be useful!	2	2
minimal examples	2	2
Had some issues with the audio playing.	2	2
Going over more examples would have been helpful. Especially with different types of clients who might face different obstacles, etc.	2	2
Felt like this part was relatively self-evident and could perhaps have gone even a bit faster. Wasn't that long, though, so not a big problem.	2	2
All the content was useful so nothing was unhelpful. It was a pretty short session and could be beefed up a little. I'd appreciate having the presenter work through some examples of how it could be difficult to implement activity scheduling, and how to ddress those challenges.	2	2
Greater detail, more content, more examples would be nicer	2	2
The training is fairly basic. I was expecting more technical difficulty. I already practice concrete activity scheduling with an assesment of outcome using scaling.	2	2
it was quite repetitive, not sure how much it added to just reading the slides	2	2

very straighforward material; however, there was no example for the last column (i.e., "Outcome") in the activity scheduling worksheet. It would be useful to have an example there	2	2
It still really bothers me that we're doing these lessons backwards, we're activity scheduling without knowing which activities to pick out! Also, the suggested solution to the obstacle in this lesson for someone who was unmotivated and depressed was to WTCH TV. That seemed incredibly counter intuitive. To get motivated... sit down and watch some TV. I don't think so.	2	2
tech issues interfered with flow of class (my ppt kept having to reload and several people's calls cut out)	3	1
During this session we covered an example for how to discuss/define depression. I found this to be less than helpful. The "best" example of defining depression lacked a definition. This "best" example will work in some situations with certain clients, ut others may be unsatisfied with what seems like shifting the subject.	3	1
I don't think I understood this module as well as some of the others, and I'm not sure if it was because the content was less clearly presented or if I was just less prepared this week.	3	1
I think I got a bit confused in this one about the goals and methods being presented.	3	1
The backward introduction of the process of BA felt very confusing this week.	3	1
I think that Drew did a great job explaining the concepts on the third training, but I appreciated more his in-depth	3	1

explanation on core issues.		
Could have talked about values more in depth. Seemed very similar to last week's training.	3	1
Becoming disillusioned with BA. Nothing in particular. It seems to simple to work with clients with longstanding personality pathology, which is my interest.	3	1
The presentation did a good job of bringing mostly everything together that was covered to form a conceptualization of clients. The specific questions that we could use for each of the target points were also useful and helped me to think about what otherquestions i would want to ask or how I could modify the questions presented.	3	2
It was helpful. It was just primarily review of what I have learned before.	3	2
Not enough on the core values section. For many therapies (e.g. CBT, problem solving therapy, etc.) these issues are dealt with on a deeper basis. While I understand that's not the goal of BA, there isn't enough of a rationale presented to help the therapst (or the client!) understand why going deeper isn't worth addressing here.	3	2
maybe a deeper discussion of how to get into core issues and translate to behaviors	3	2
Just would have been helpful to have more examples of dialogue between therapist and patient.	3	2
I had trouble with the sound after the discussion of activity scheduling.	3	2

I would never label anything that was simply not BA as "BAD". Yikes! I would just call it "NOT BA". If it's interpersonal, it's "NOT BA", it's not BAD EVIL ETHICALLY WRONG...	3	2
In the slides and in Drew's explanation I noticed a lot of "but" language rather than "and" language. I think the latter promotes more flexibility and openness in clients while the former may sound argumentative. So for example, when facing a challenge - it makes sense that you want to feel better and have more energy to engage in these activities, AND (instead of but) research shows that improving your energy and mood isn't necessary to still be able to act."	4	1
It took a little while to get into the rapid fire real play as switching between participants made it feel a little unnatural, but they were overall very helpful. Spending a little more time upfront on the rationale / logistics might be helpful.	4	1
too basic if one has had any prior CBT training	4	1
I felt like the comparison of avoidance to the BA rationale was a little confusing for me.	4	1
I think the training content is excellent.	4	1
Unfortunately, this unit felt disorganized. The previous week's unit had been cut short due to technical problems (the trainer disconnected for a period in the middle of the training), which caused the real play to be pushed back to	4	1

this session, which cused this session to feel disjointed.		
I have an observation about this module, but it may be completely idiosyncratic to me. For some reason I found this module more difficult to follow. On the other hand, I thought it did a good job synthesizing all of the previous information together. Thismay have been why I felt I needed to watch it twice, but when I did everything clicked.	4	2
The only thing I think I would have liked was to have an "outline" of the entire procedure right from the start and to then use it looking at the training backwards. I was apprehensive even as I used some of the techniques without the "full picture." It mkes sense to learn it this way, yet also might have filled in the gaps versus been totally new each time.	4	2
The slides sometimes do not work, no matter what internet explorer system i use	4	2
Some times it feel very very repetitive, which can be annoying though I understand why it's happening.	4	2

Table 7

Qualitative feedback on suggested change for the online BA training

Anything you would recommend to change or present differently?	Session	Group
I do not like the format of being on the phone as well as being online. I would prefer all online.	1	1
More information, possibly on the slides. Cheat-sheets are good (the assessment checklist was invaluable)	1	1
Great presentation today	1	1
I wonder if there would be a way to incorporate more role plays into the training, perhaps with participants scheduling brief phone calls with one another in which the trainer is conferenced in and could give feedback. I think this would greatly help partcipants to feel comfortable actually applying these new skills.	1	1
Either less active learning activities or shorter time limit on each. No more volunteering as people talk over each other.	1	1
I can't think of anything at this moment.	1	1
Didactics or anything that requires straight relaying of information should be done independently and via video.	1	1
Maybe everyone who wants to make a comment can type into the chat box so we don't interrupt each other	1	1
For those who couldn't get the online class to work, please keep updating about what slide we're on.	1	1
Just the PDF as mentioned above.	1	1

Need to call out people's names - difficult when you can't see who is talking. Some people didn't participate.	1	1
See response above re: what to expect.	1	1
Some of the people were kicked off the phone and at one point there was music playing (like the music they play when put on hold).	1	1
Possibly more of a Q&A time.	1	1
I enjoyed the didactic information so I would be fine with having more of it.	1	1
i would appreciate as much advanced notice about when the trainings will be as possible--at least 2 weeks notice which i did not receive this time	1	1
I really enjoyed the format and the presenter.	1	1
A briefer introduction with more practice examples.	1	1
It would be great for the opportunity for the script to be readable, that way, rather than review, I could have paused a segment and written down notes from the written portion. Even accessing that at the end would be fine.	1	2
I liked the pace of the trainer's voice and the examples provided throughout. I kinda think that an experiential component is what is really needed. I know this would make the research more complicated and time consuming for participants, but I would realy like to put what I learned into practice prior to doing it in therapy. This can be	1	2

offered as suggestions for participants if they really want to master the skills.		
Louder volume?	1	2
Add more about probing for the client's values (how do we determine what those values are?), adding more about the rationale	1	2
I wish there was a way to print the slides so I could follow along and add supplemental notes from the audio as I was constantly going back to write things down.	1	2
No, I think everything was great for this first session.	1	2
The ideas were very helpful, however, it felt like the video could have been more concise. It felt slow and that the material could have presented in a shorter time frame.	1	2
The volume was kind of low - usually my little laptop does just fine with these kinds of things, but even with the volume maxed I had to find a very quiet room to be able to hear.	1	2
Make it more interactive. Watching powerpoint slides online is very passive -- it's tempting to disengage and do something else online while just listening to the content	1	2
I was distracted by the bar at the bottom that said when the slide would change. It wasn't helpful to me. Personally, I would have benefited from more visuals, and faster paced presentation of the material.	1	2

More detail	1	2
Could be helpful to make it more interactive and test some of these skills.	1	2
It may seem to be repetitive to some people but I think it would be helpful to incorporate what was learned during today's session into a role play at the end so we can see how it is all put together. Once again, it may seem to be repetitive as the role lay is broken down into segments (which is also helpful) but It would be nice to see how it all plays out at the very end.	1	2
I would have enjoyed seeing a short clip of the client asking questions and the clinician's response in a video format	1	2
Ideally I would like a speech pace button, such as is available with audible e-books to speed up or slow down the pace to listener preferences.	1	2
Need audio for the entire presentation.	1	2
If anything, it might be helpful to have more examples or repetition of how one would phrase the interventions when with a patient.	1	2
no just as s aid above- a progression of the discussion as not many patients will just say "ok" when you present them with avoidance work- arounds.	1	2
Some role plays with clients might be helpful. That might provide something added beyond just a powerpoint of the	1	2

chapter.		
No. I really liked the presentation.	1	2
I tended to zone out a bit at times- it was hard to stay engaged when the screen didn't change very frequently. I'd be much more engaged if I could see the speaker.	1	2
the information seemed to somewhat repetitive and slow	1	2
It would be awesome if one could download the power point slides actually - and I don't mean the video clip but the "ppt" file... or at least a PDF version. This would help tremendously, as one could refer to it (e.g., the 6 tips) even when the video clipis no longer available.	1	2
the volume was a little soft.	1	2
As much as I get your rationale for providing this training backwards, it's annoying to not have a handle on how to present or talk about BA, which means I can't start BA on a patient of mine until after I have totally completed all parts of this. Most ofmy patients I only see once a week, which means one month from now I can start using it. If you presented the training in order, I could start and learn as I go, which is how most therapy training goes...	1	2
I had a hard time hearing the audio at points (I had the volume all the way up and typically have excellent hearing.)	1	2
Appreciated power point slides (like from first training) rather than PDFs this time. Easier to take notes on	2	1

powerpoint.		
more specific feedback to each person after they complete the rapid fire role play	2	1
instead of the rapid-fire. it may be more helpful to discuss specifically difficult case scenarios that the trainees could brainstorm solutions for.	2	1
Audio quality	2	1
Maybe present the BA activity hw sheet earlier since it can also be used at the beginning to establish the client's current behaviors.	2	1
more examples of typical responses from clients would be nice	2	1
I find it challenging that many of the participants do not volunteer to present scenarios or feedback. I find it awkard and difficult to do myself, but as we are a learning community, it would be more beneficial with more lively exchanges. I realize that ou may not be able to influence that, but I wanted to share my impression with you. It may be helpful to encourage participation by noting that it is natural that it might be awkward, but that it is really helpful to all if each of us risks a little comfot so that we can all learn.	2	1
length of time into 1 hour session rather than 90 min.?	2	1
Just the mandatory role playing. Otherwise its a wonderful training session.	2	1

1) Copies of the slides 2) More examples of specific language used by therapists in session. I found the information more helpful the more concrete it became.	2	2
I would possibly like a written transcript for the reason stated above, an ability to review.	2	2
Presentation of material was good, just lacked content that was helpful or that helped me to really think about my work with clients.	2	2
Handouts and worksheets would be great!	2	2
No. I think the way the 5 points were outline was helpful and the step-by-step instructions for how to use the activity schedule form were great.	2	2
More examples	2	2
Again, I like the idea of having the slides available as well so after the week I could continue to use them and don't feel rushed to write everything down.	2	2
Just more detail. I think most novice clinicians have the basic idea down, so going through different case examples would be more helpful than just going over the principles.	2	2
faster? a couple more examples of detailed assignments?	2	2
More interactive examples. Like I said earlier, what might be some common challenges in activity scheduling and	2	2

how to deal with those.		
Again, I felt like the slides were disenaging and the tone monotonous. I doubt there's anything I could gain from this online training that I couldn't get from reading a chapter in a book. I always read the slides before the voice is close to through, wich gets boring and leads me to disengage. I would like if there were something particularly special about the slides that I uniquely benefited from.	2	2
More content	2	2
maybe more examples?	2	2
adding more case scenarios. I understand that the sessions would take longer but think it would be helpful overall.	2	2
I would like a copy of the powerpoint slides that I could keep. I wasn't sure how to print them out in this format it is in now. There are times that I would like to refer to them without watching the whole presentation etc.	2	2
I would prefer a speed control as is available through audible audio books and i-tunes podcasts.	2	2
No. I like that it's simple and easy to follow.	2	2
I would like printouts of the slides and worksheet...	2	2
I wish the deadline was midnight on Saturday.	2	2
Yea, I understand the approach is simple, but I find it hard to pay attention. Maybe it would be more interested to	2	2

have difficult client situations or role plays or something to help understand how this is applied. Having all theory is great, but I'd lve to see an actual session.		
Volume is adequate, but I've been listening with it at max volume.	2	2
more examples, maybe mock therapy sessions (video) as examples	2	2
Adding an example for the last column (i.e., "Outcome") in the activity scheduling worksheet. It would be useful to have an example there	2	2
That obstacle solution was terrible! And again, go forwards. Going backwards so I have time to practice the harder skills first is becoming increasingly ridiculous, as I certainly wouldn't be using avoidance targeting on a patient when I haven't learned hw to present the model, focus on appropriate activities, or schedule activities.	2	2
By this (third) session, because we didn't do the sessions in order (i.e., 1) providing rationale, 2) Assessment, 3) Activity Scheduling, and 4) dealing with avoidance) but we did them backwards instead, people started getting a bit confused about what sklls to implement when. So, it might be helpful to reiterate throughout the session what step we're on. Or, find a way to preempt people becoming derailed and/or confused by virtue of going out of order.	3	1
I think it would have helped to hear the purpose of this section at the beginning of this class - so, tell us that the purpose of this lesson is to gather data for the case conceptualization and treatment plan	3	1

Nothing that I would change, them I am curious as to why we do both a conference call and a web meeting rather than running the audio over the web meeting. At least having it as an additional option would be nice given that one or two people a week seem t have problems with dropped calls.	3	1
More examples of the skills presented during the didactic portion	3	1
A reminder of where the module fits in for the whole BA tx, in the beginning of training. I.e., Big picture -> focus of training.	3	1
I liked that we roleplayed a depressed client this week (instead of working on our own personal goals) during the modeling and rapid-fire real play. The roleplay made it more difficult, but I think this experience was more similar to those that we will hve in the real world with our clients. It might be nice for the real-plays/roleplays to increase in difficulty each week instead of the sharp increase in difficulty we experienced this week.	3	1
Perhaps adjusting the time for sessions with less content? It seemed like in some sessions we got through the content part pretty quickly. I guess more time spent on the practice component is good but it kind of dragged a little bit... I am mainly referrig to session 2, this past session was pretty well-paced.	3	1
More rapid-fire real play, if time is an issue, maybe make sessions longer.	3	1
provide more examples	3	1

I would prefer, instead of the rapid-fire, have perhaps pre-recorded session snippets that illustrate the techniques. I do not feel comfortable with that format.	3	1
Like before, each time, things become clearer. While I've tried to incorporate each module in sessions with clients as I've learned them, doing it in reverse order has sometimes made this difficult. At the same time, I see with each session how it builds,and that it actually makes each section already presented make MORE sense than if it were in order of how it is done in therapy. I wonder about not using these with clients, but rather practicing with ourselves as trainees would be better so that once we ad "mini-self-sessions" on doing this in our own heads, we could then put it together with clients. I look forward to actually using these new skills once I have all the information and I also believe it will be quite effective with clients.	3	2
Maybe a notes or summary sheet to reference at the end of each session? I found myself going back to previous sessions, so a short notes sheet would be helpful	3	2
Avoid using pejorative terms such as "good" and "bad" (e.g. the example with the supervisor).	3	2
I would prefer to utilize BA as an additional treatment rather than replacing what I typically use. I believe in integrating modalities and theories to be more competent with a variety of client backgrounds and preferences for treatment. The slides seemedto label doing so as "bad," which made BA seem less of an option for me, as I won't	3	2

feel comfortable giving up my preferred approach entirely to focus on client behaviors alone.		
Making it more concise might be helpful. I felt like the material could have been presented just as efficaciously in less time.	3	2
Audio low. Had trouble with a few of the slides not showing the images and had to "reboot" the show, then worked fine.	3	2
It would be great to add some examples of what "dealing with core issues behaviorally" looks like in session. Give some specific examples	3	2
It would be great to see role plays of these concepts between a therapist and patient.	3	2
wish i could do this on saturday	3	2
the presenter could provide more information than what is available on the slides	3	2
^ See above re: HOW to think behaviorally and some examples to attack core issues from a BA perspective. In addition, I didn't like how you guys suggested "Hey, if you know ACT, use that, otherwise just ask about values!" That felt kind of cheap, like heythere's more to this but you're not sharing it because it's somehow not BA? (and therefore "BAD"???)	3	2

It would have been great to have had a little more time for the role play at the end of this session.	4	1
The review from each week (and especially this one) should be shorter to have more time to discuss the current topic. Giving an agenda would help.	4	1
Initially I liked how we started with Challenging Avoidance and moved backward toward the rationale portion, but In retrospect it might have been useful to work through the order in the traditional way. Doing so would have made it easier to practice the sills more effectively with clients. At this point it will be tougher to go back and discuss the rationale with clients who I have already been doing some of the other BA techniques with.	4	1
This session had a lot of information packed into it and could have been divided into more than 1 session.	4	1
Not really.	4	1
Perhaps using a real case with more complicated examples.	4	1
Again, not sure of the backwards presentation of the approach. This doesn't fit my learning style and I think I have struggled to fully understand as a result.	4	1
I think longer than 90 minutes would be helpful	4	1
wish could do rapid-fire real play for longer	4	1
I would like to have more practice with modeling with difficult patients.	4	1

I would suggest, though it should seem obvious, that along with activity scheduling and homework direction should be given to have the participants think about possible scenarios from their own or client experiences so that each person can readily volunter.	4	1
I think that a printable component would have been very helpful. I found myself having to take notes so that content would still be in my head when I was synthesizing it with later slides.	4	2
Just what was stated above: I'd have an entire outline and then go back and learn in reverse.	4	2
The 3 challenges portion at the end was a little obvious/repetitive	4	2
The slides for this portion of the training were just really busy. They was often a lot of text in a lot of different tables, thought bubbles, etc. that made it somewhat difficult to focus on any one thing.	4	2
allow for questions to be answered (maybe through e-mail to the trainer?)	4	2
Option to have slides to take additional notes	4	2
Information about empirical support for BA	4	2
I know you deliberately put the rationale module at the end but I think it would be much, much, much better to have it in the beginning. I've been incorporating more BA in my clinical work as I've been doing this study. Now after module 4 I wish I'd don a better job providing a rationale to my clients several weeks ago. It's much easier to	4	2

incorporate the training into actual practice if we learn it in the order we actually use it.		
Improve slide quality. Reduce ammount of reading off slides. Provide pdfs of content.	4	2
I would provide copies of the slides	4	2
Previously mentioned note about a speed control.	4	2
maybe a live case	4	2
I certainly would like some documentation - handouts seem easy to provide	4	2
Perhaps to have a little PDF manual that includes outlines of each presentation and then handouts to use for clients that are referred to throughout the video.	4	2
This week seemed very straight forward, though I would have preferred this presentation at the beginning instead of the end, which I've said before.	4	2

Table 8

General qualitative feedback for the online BA training

Do you have any other general feedback?	Session	Group
While I really appreciated the live video of Drew (as it gave me something to look at), there was a lag in the video feed which seemed to increase as the session went on. By the end of the session, I found it too disconcerting to watch the video as it wa significantly out of sync with the sound. Is there any way around this lag?	1	1
I would like to implement the text box more. It's much easier to communicate with so many people via text than voice since you never know who's talking by voice and when it is okay to speak.	1	1
This is the most organized online training I've ever participated in...ever.	1	1
90 minutes is too long. Most people's attention span is 30 min or less but difficult to change given complexity of synchronizing multiple people's schedules for shorter sessions.	1	1
It was great- thank you!	1	1
a recap email may be beneficial as well. 3-4 point take away from training, and homework reminder for next session since not all participants may be able to stay logged in the entire time.	1	1
I think it's great that you are having us do our own BA exercises, as that helps me to understand what it's like for a client to integrate these sometimes difficult changes into their own lives.	1	1

I thought it was pretty neat! It seemed like a lot of people which I thought might get cumbersome, but I guess it worked fairly well. I wasn't able to participate in the role-play (because I was driving at the time and only listening in) but I still thinkI got a lot out of it.	1	1
Awesome, and helpful to start to with avoidance, the most difficult topic.	1	1
I ax cited to learn this technique	1	1
I am glad I signed up for this. The training is good. I liked the didactic part.	1	1
I think the way the course is designed with providing content and active real-time modeling is helpful. Though it is a new concept to me, it is helpful to begin actively using elements to get some feedback.	1	1
Developing a system to limit participants interrupting each other on the phone conference, such as typing a desire to talk on the chat first	1	1
great job drew and ajeng. thank you for putting this together and being so receptive to comments, questions and feedback early in the process!	1	1
I am thrilled to learn new skills to help me have more in my tool box as a therapist and thrilled this research is not only helping someone with research to validate particular kinds of training, but also that it will help me and then possibly others withmore knowledge and more theories from which to build a foundation for counseling work.	1	2

Thanks!	1	2
Is there any way that participants could have access to the slides after the research project/training is complete? Having the slides would be extremely helpful for session planning, etc.	1	2
Is there a way to supply the slides in paper form?	1	2
good so far! glad I'm doing this!	1	2
The audio on the slides was extremely quiet making it difficult at times to understand what was being said.	1	2
I liked the specific examples of what a client and patient would say. It might have been helpful to have a different voice reading the caption, to keep it more engaging. I got bored when the voice was reading exactly what was on the screen because I finshed reading it long before the voice did. I thought the graphics could have been much better, and was distracted by their appearance. Otherwise, I thought the organization was good. It was easy to follow. The outlines and diagrams were helpful.	1	2
I really like the presentation and content. I feel that it would be better if more detailed. More theory behind avoidance. More details behind targeting avoidance. Incorporate more content on how to guide a client. Perhaps examples.	1	2
Would have appreciated a little bit more basic rationale in the beginning, just to help understand how BA may	1	2

differ from other CBT methods.		
Maybe incorporating practice. i.e. let's pretend a client said this, what would you say? and then going over a suggestion for what to say	1	2
This has been a really helpful course so far, and has gotten me thinking about BA with all of my patients. Even if I'm not using BA interventions this week with my patients, it's helping me with conceptualization and treatment planning down the line.	1	2
I'm wondering about behavioral NON activation; not doing something because doing it will cause depression. Such as eating bad-for-you food.	1	2
I hope the slides/presentations will be made available after the study. I can see myself wanting to refer back to them instead of re-reading the book chapters.	1	2
Overall I was satisfied, but I also have a lot of training in ACT and contextual perspectives, so it was very much a review, with new material being the particular language used by BA	1	2
The first question asking participants to rate "how helpful was the session" has more than one 'mostly helpful' response. I worry that this will throw off your response data for this question for this session.	1	2
the information seemed to somewhat repetitive and slow	1	2

Unrelated to the video clip: I was a bit confused about the requirement to currently see clients with depression while participating in this study. I've started seeing one (and will be using BA techniques) just because I agreed to participated in the stud, but it seems that this requirement is not as strongly linked to the participation aspect as I initially thought it would be. Just a remark - not necessarily something that may be important here.	1	2
can we have the ppt files emailed to us?	1	2
It's a little confusing how you categorize BA as an "active, directive" strategy, yet say it doesn't forget about empathy and is "collaborative". I think that's a bit misleading, especially since the only time you mention empathy is to say "don't forget aout it!" There doesn't seem to be much collaboration when you're telling someone their avoidance patterns are normal and you ought to get up and go even if you don't feel like it. That's exactly where people get stuck- how do they get up and go if they on't feel like it? BA's answer is pretty much: You just do! Or at least that's what I've learned so far...	1	2
On the printed power point slides, any slides that have layered pop ups on them have obscured text, so those slides have unreadable portions on them.	2	1
More reiteration of the theoretical reasons (just a sentence or two) for the use of the skills may help internalize the skills better	2	1

I think it would be helpful to set an agenda in the beginning so we know how long different portions of the class will take. Similarly, it would be helpful to have question segments and know how much time we have to spend on them. To aid in that, we shoul make better use of the text-box and maybe type our questions there so the instructor could estimate which questions to address at any given point.	2	1
90 min is too long.	2	1
Thanks!	2	1
Nope, so far so good.	2	1
I am glad that I was selected for the live session. Having the modeling in real-time and the rapid fire are really useful and have created active memories that help me in my everyday practice of the techniques.	2	1
Thank you. I am finding my participation in this study valuable.	2	2
Again, please provide more examples. Also, maybe assigning a "homework assignment" as practice for the study participant in order to model these skills.	2	2
I would have liked more examples on the completed activity scheduling form.	2	2
On the session itself - no. ALthough I really loved the power point slides this time around. I did notice there were people who were not a part of my session (that I know of) who were commenting on our session. I was not	3	1

informed we were to be observed rel time by anyone other than the PI. It's not problematic for me, I just found myself surprised… and then curious!		
Again, I'm *not* blaming the instructor, just giving feedback, but not being able to see him (this week our instructor was only available through the phone, we could not see him on the screen) made me feel a bit more detached from the experience and thus ade it easier for me to become distracted.	3	1
We ran out of time for the rapid-fire portion and in my opinion that was a good thing. I think having time for more discussion and questions is more productive that one-minute role plays that throw everyone off.	3	1
It is really awkward to have my superior officer in the same training group as me. I just feel like I can't speak freely so I feel that I'm messing up more when I can participate in the sessions.	3	1
This section could have used more time. It seemed to have more content than the first 2 sessions. The first 2 sessions were easier to follow and seemed more intuitive.	3	1
It was easier to focus without the presenter's image in the corner of the screen, and with participants hidden.		
Provide summary/guide on how to use BA with other therapies, e.g.,at the beginning of/ middle of/ end of IPT, how to transition etc.	3	1
Continues to be a really great course! Extremely well organized and user-friendly.	3	1

Thank you for this session. I could have used a little more explainations of some concepts. Overall, this is very helpful. I see how practical this technique can be for clients.	3	1
I enjoy the course tremendously. As stated last time, I wish more of the participants were willing to step forward to volunteer or share. Often there is dead silence and I feel obliged to start almost each time just to get things moving. It is not meant a a complaint, really. I am just interested in the other participants' thoughts.	3	1
The difference between this unit and the previous two units was less clear than I would have liked.	3	1
I enjoy this training and the philosophy behind the therapy. I believe it will be effective to put it together with clients and look forward to using this in therapy with clients.	3	2
Like the example questions in this section	3	2
Overall, I appreciate the training, but I wish it included more specific examples (even though I understand each client is unique).	3	2
This is really helpful.	3	2
I liked the examples. Audio volume was a bit low.	3	2
It would be great to have PDF forms of the slides, so we can reference during the week.	3	2
I found the slides on "5. Core Issues" with the BA Supervisor responses particularly helpful.	3	2

This week was a more engaging module for me that contained some complexities and intricacies that I hadn't considered before, such as what to do when a client asks a philosophical question or you suspect relational issues may be causing the depression.	3	2
I would be interested to know if having audio over the slides is helpful beyond reading slides and/or notes.	3	2
I also would have appreciated a tip list or outline incorporating everything addressed in the 4 sessions. Every session had a chart listing major ideas to address. A final fifth session would be helpful to integrate all the material.	4	1
The slides sometimes had too little information and sometimes too much information and maybe a little confusing. Making the slides more deliberate would be helpful. and relating them back to the topic that is being discussed at that moment. Also, maybe prsent the stages in order, if at all possible. Also, I didn't like that the examples of what to say (in the slides) were the same two women over and over. Makes it hard to remember what intervention corresponds to what stage.	4	1
It might be helpful to add in some questions about technique (multiple choice, open ended questions-) or troubleshooting in BA	4	1
maybe more targeted readings--the amount of pages on the papers that were sent out made it a bit overwhelming to even know how to complement the trainings with reading. if we had weekly short papers/chapter sections to read	4	1

that went along with the trainigs, i think that would help to enrich the learning process.		
I think it would help to utilize the text box option more. Phone connections were not great so it was often confusing and hard to hear people. Also, the video screen should be better for an actual class. Maybe using Skype, Facetime, or Google video would elp. And I would like it if it was a video conference in general so that we could all see each other. Also, I'm not sure how, but maybe assigning who would talk when. It was often anxiety-producing not knowing when Drew would call on me to participate. An lastly, I'd like to have an agenda at the beginning of each session just to orient myself to what each class would look like (especially when we're catching up from the previous week or have to wrap up early).	4	1
As far as the online piece, the slide sharing is nice but it would be nice to also have a virtual whiteboard component and/or the ability to listen/speak via the website rather than having to call in. I feel like using the phone should be a backup.	4	1
I think that how this was set up was extremely effective, minus the rapid fire role play. The interaction that I didn't get was my fault because of what happens in our clinic.	4	1
I think this was a great format. I like how the instructor provided feedback after each participant role-played. It was helpful to know what went well and what could have gone differently.	4	1

Just as I had said in the first survey, it would have been a lot easier for me if the "handouts" were editable powerpoints instead of pdfs because then I could take notes right on the pages. And maybe 2 weeks between sessions would have been a little mor effective for me personally because I would have had more time to work with clients and to finish the readings between sessions.	4	1
It might have been nice to have interactive surveys taking place during the class with questions about key points in each didactic section.	4	1
Really the only thing would be to provide actual powerpoint slides rather than pdfs. It wasn't very practical to move back and forth between the live presentation and the pdf, and I would have much prefered a powerpoint that I could take notes into direcly rather than trying to keep a separate document going. This is a minor issue though. I think overall it was great.	4	1
Is there a way to connect the video to the sound instead of calling in and going online? Would be nice to somehow see other people - difficult when talking over others.	4	1
Drew was phenomenal and did an excellent job. I really can't think of any improvements.	4	1
I would just have loved to know in advance how much time many of the components of the study would take, including the many, many surveys. I am totally unsure how long these last aspects that I haven't yet completed will	4	1

take, and this is important for meto know because my schedule is very busy.		
It seemed like several of us felt very shy and self conscious about doing the roleplays. One person even declined to participate because he felt nervous. I wonder if people might feel less self-conscious about doing the role play activities if they wentby an anonymous identifier.	4	1
i would like to have a modeling example at the end where the instructor models with a difficult patient--one that can't come up with activities and/or has a lot of avoidance.	4	1
The only advice I have is to find specifically ask the participants to come prepared with some scenarios to share in the modelling and/or rapid-fire. I have mentioned this above.	4	1
I think all of the previous questions are all answered the same for me. I would have liked some type of written materials that I could have paged through - a pdf would have been fine.	4	2
I have taken classes in instructional design at the graduate level, and so I know that interactive modules are considered engaging and are possible to be used to increase learning. At the same time, I do not believe this was not interactive since I took ntes in order to be able to use the skills. I suppose that "clicking" through might have been helpful if a person required that kind of engagement to remain focused. As a graduate level student, a mini-lecture format worked just fine for me, personally. I o not believe that this training itself requires more interaction. It was	4	2

very effective as is.		
Videos would be more interactive and would capture my attention	4	2
I'm not sure how this could done, but it could be more interactive if there were questions that the trainee could actually respond to (e.g., click an answer option on the screen) and then get some feedback.	4	2
E-mail questions to the instructor, personalized homework assignments.	4	2
Possibly having more forms or handouts to review	4	2
Would have liked a copy of the slides (I take notes on slides when I listen, and something about writing things by hand is really helpful for me to retain information - and then when I look back at the slides with my own notes on them, it's a very efficiet refresher for me).	4	2
Provide a scenario and create some kind of assignment or challenge. Have the trainee come up with ideas to implement the skills taught that week. For example: "Your client was supposed to do X assignment but they didn't do it and are telling you they jst sat around the house instead." What will you assess? How will you address the avoidance? What will you do differently when scheduling activities next week?" Create a space on the website for trainees to actually enter their answers so they're force to come up with something.	4	2

Improve slide quality. Provide pdf handouts of the materials covered in the slides.	4	2
I think that the format was very good. I did appreciate examples and ways to counter challenges/difficulties.	4	2
I would like for a role play to occur after the 4 components are completed as part of a 5th component. This would help us to hear how everything is put into action and tie everything together. After this is done would be the followup role play with us.	4	2
Have a video and suggest a dilema and pause and ask how you would respond first etc	4	2
The course was very well constructed. I am a former teacher, and I can say that the creators have done a good job. I did enjoy the final presentation most, and found it the clearest, but perhaps only because I had learned the other elements first. It's dificult to say.	4	2
asking that someone completed the homework, providing downloadable sheets from the beginning and accessible on something like google drive	4	2
I think that more practice and reinforcement of the concepts would be beneficial, perhaps with the lecturer offering	4	2

scenarios and asking viewers what they would do given what was just learned, and then answering the question. That way, viewing the module would be less passive and more engaging, with more practice.		
may be have a question/ answer session	4	2
Could you have more sample vignettes, and we could choose the topics that would help us? Also, some written documentation should be made available.	4	2
I might have enjoyed little quizzes at the end of each session. Similar to the pre-test.	4	2
Overall it was great. Like I said before, adding some videos might make it a little more engaging.	4	2
I think providing links to where someone could access activity monitoring sheets or papers to help explain (i.e. circles connected by arrows with the major points, etc) would have been helpful.	4	2

Appendix A

Recruitment Script

Hi all,

I am working with Dr. Shawn Cahill at the University of Wisconsin-Milwaukee to evaluate the efficacy of an online training in Behavioral Activation (BA), and we would like to offer you a chance to participate in this research. We are inviting graduate-level students who will become mental health professionals, such as those in the Clinical Psychology, Counseling Psychology, Nursing, Social Work, and Psychiatry Residency program.

If you are a faculty, we would highly appreciate it if you could pass on this recruitment information to your students.

If you are a graduate-level student and interested in participating, here are several study procedures that you will go through if you participate in the study:

- If you meet the inclusion criteria, you will be asked to review and complete the online inform consent. More information on completing the consent form is provided below.

  The inclusion criteria are:

  1) Supervised by a licensed individual
  2) Currently a graduate-level student in the following programs: Clinical Psychology, Counseling Psychology, Social Work, Nursing, and Psychiatry Residency.
  3) actively seeing depressed outpatient clients as a trainee during the study period
  4) Able to comply with study procedures (i.e., computer with high speed internet access).

- Once you complete the consent form, you will be randomly assigned to one of the two training formats:
  1) ***A trainer-led online BA training.*** In this training format you and a small group of colleagues will meet weekly for four online sessions with a BA trainer.
  2) ***A self-paced online BA training.*** In this training format, you will receive access to four audio-guided online presentations by Dr. Jonathan Kanter that are matched in content to the trainer-led online training. You will have 1-week access to complete each self-paced training session.

  In both trainings you will learn how to conduct the fundamentals of BA, a simple, empirically validated tool for working with depressed clients. The trainings will focus on improving your skills, not just knowledge, to implement several core BA strategies.

- ***Role Play Assessment.*** Within two weeks before and two weeks after the training, you will be asked to complete a role play assessment over the phone where you will interact with a hypothetical depressed client and will be prompted to implement several BA core skills. The role play assessment will take no more than 1 hour to complete. The purpose of this assessment is to measure the impact of the online BA training on trainees' BA skills.

- ***Online Questionnaires.*** You will be asked to complete several online questionnaires throughout the study:
  1) A demographic questionnaire in the beginning of the study
  2) A BA Knowledge Assessment at pre- and post- training
  3) A questionnaire to assess attitude toward Evidence-Based Practice at pre- and post- training
  4) Weekly Feedback Questionnaires before and at the end of each training session.
  5) A Post Training Session Questionnaire at the end of each training session.

  You will most likely spend less than 15 minutes a week to complete these questionnaires.

Instructors Credentials:

If you are randomly assigned to the live, expert-led BA training, your training will be led by either one of these BA trainers:

Trainer 1:

Trainer 2:

Trainer 3:

If you are randomly assigned to the self-paced BA training, the presentation will be audio-guided by Jonathan Kanter, Ph.D.

Training Schedule

We will offer three batches of expert-led BA training with different schedule. You will be asked to identified at least one group that will work with your schedule.

Trainer-Led Online BA Training – Group 1

Session 1: (90 min) TBD

Session 2: (90 min) TBD

Session 3: (90 min) TBD

Session 4: (90 min) TBD

Trainer-Led Online BA Training – Group 2

Session 1: (90 min) TBD

Session 2: (90 min) TBD

Session 3: (90 min) TBD

Session 4: (90 min) TBD

Trainer-Led Online BA Training – Group 3

Session 1: (90 min) TBD

Session 2: (90 min) TBD

Session 3: (90 min) TBD

Session 4: (90 min) TBD

Technical Requirements: You will need a phone and a computer with high speed internet access.

Self-Paced Online BA Training

Session 1: (30 min) – open access from [Dates TBD]

Session 2: (30 min) – open access from [Dates TBD]

Session 3: (30 min) – open access from [Dates TBD]

Session 4: (30 min) – open access from [Dates TBD]

Technical Requirements: You will need a computer with a speaker.

If you are interested to participate in the study, please click on this link below to complete the consent process. Please review the study procedure carefully before you provide your consent.

[Link to the online ICD]

If you have any questions or would like to discuss the study protocol or the consent form in detail before you provide your consent, please email the study coordinator, Ajeng Puspitasari, M.S., at ajp@uwm.edu. Please provide your phone number and the best time to reach you.

Thank you for your time and kind attention.

Best Regards,

Appendix B

UNIVERSITY OF WISCONSIN – MILWAUKEE
CONSENT TO PARTICIPATE IN RESEARCH
Therapist Consent

THIS CONSENT FORM HAS BEEN APPROVED BY THE IRB FOR A ONE YEAR PERIOD

1. General Information

Study title: A Randomized Pilot Investigation of an Online Training in Behavioral Activation for Depression to Evaluate the Efficacy of Active Learning Strategies

Person in Charge of Study (Principal Investigators):

Dr. Shawn Cahill, Associate Professor in Psychology

2. Study Description

You are being asked to participate in a research study. Your participation is completely voluntary. You do not have to participate if you do not want to.

Study description: The purpose of this study is to evaluate the outcome of a trainer-led online Behavioral Activation (BA) training in comparison to a self-paced online BA training. If you agree to participate, you will be randomly assigned to either the trainer-led online BA training or the self-paced BA training. The trainer-led online BA training will consist of four 1.5 hour training sessions delivered once a week led by one of the three BA trainers who have had at least five years of experience in BA. The self-paced BA training will consist of four approximately 1/2 hour interactive slideshows audio-guided by Dr. Jonathan Kanter, with encouragement to practice on one's own. For each self-paced training session, participants will have one week open access to complete the session.

You will be asked to complete several outcome measures to assess the efficacy of the BA trainings. These measures include two role play assessments to measure change in BA skills before and after the training, a demographic questionnaire, and a series of questionnaires to

assess BA skills confidence, implementation and training acceptability. Detailed description of each measure will be provided in the next section.

If you have any additional questions after reading through this form, you may call 414-229-3834 to speak with Dr. Kanter.

3. Study Procedures

What will I be asked to do if I participate in the study?

Here are several study procedures that you will go through if you participate in the study:

- Once you complete the consent form, you will be randomly assigned to one of the two training formats:
  3) ***A trainer-led online BA training.*** In this training format you and a small group of colleagues will meet weekly for four online sessions with a BA trainer.
  4) ***A self-paced online BA training.*** In this training format, you will receive access to four audio-guided online presentations by Dr. Jonathan Kanter that matched in content to the live, online training. You will have 1-week access to complete each self-paced training session.

  In both trainings you will learn how to conduct the fundamentals of BA, a simple, empirically validated tool for working with depressed clients. The trainings will focus on improving your skills, not just knowledge, to implement several core BA strategies.

- ***Role Play Assessment.*** Within two weeks before and two weeks after the training, you will be asked to complete a role play assessment over the phone where you will interact with a hypothetical depressed client and will be prompted to implement several BA core skills. The role play assessment will take no more than 1 hour to complete. The purpose of this assessment is to measure the impact of the online BA training on trainees' BA skills.

- ***Online Questionnaires.*** You will be asked to complete several online questionnaires throughout the study:
  6) Demographic questionnaire in the beginning of the study
  7) Weekly Feedback Questionnaire before and at the end of each training session.
  8) Post Training Session Questionnaire at the end of each training session.

  You will most likely spend less than 15 minutes a week to complete these questionnaires.

You will be provided with a unique identification number that you will use to complete all of the online questionnaires. You will not need to provide your identity or any other identifying information when you complete all of the questionnaires.

4. Risks and Minimizing Risks

What risks will I face by participating in this study?

There are few foreseeable immediate risks related to participation in this study. Participation in the training seminar may result in fatigue and the implementation of new strategies may be stressful at first. There are, however, no physical, social, or legal risks related to participating in this research study.

Collection of data and survey responses using the internet involves the same risks that a person would encounter in everyday use of the internet, such as breach of confidentiality. While the researchers have taken every reasonable step to protect your confidentiality, confidentiality while completing the survey and while the data is stored online cannot be guaranteed. As with all internet-based communications and data storage, there is always the possibility of interception or hacking of the data by third parties that is not under the control of the research team.

You have the right to withdraw from the study for any reason at any time and without penalty. If you withdraw from the study, it will not affect your ability to participate in future studies with UWM or the Practice Ground learning community. You may also contact the Principal Investigator, Dr. Shawn Cahill, at any time if you have any concerns or are feeling discomfort due to study participation.

5. Benefits

Will I receive any benefit from my participation in this study? You will benefit from training in your use of techniques of behavioral activation. Findings from this study will be used to develop effective training methods for therapists treating individuals seeking treatment for depression.

These benefits outweigh the slight possibility that you may feel some discomfort during the study.

Are subjects paid or given anything for being in the study? No financial compensation is provided in return for your participation.

6. Study Costs

Will I be charged anything for participating in this study? There will not be any fee for receiving the training that occurs with this study.

7. Confidentiality

What happens to the information collected? All information collected about you during the course of this study will be kept confidential to the extent permitted by law. We may decide to present what we find to others, or publish our results in scientific journals or at scientific conferences, but these findings will be presented without any identifying information on the participants. Only the Principal Investigator and trained research personnel will have access to your personal information. The Institutional Review Board at UW-Milwaukee or appropriate federal agencies like the Office for Human Research Protections may review your records.

Each participating therapist will be given an ID number and all questionnaires will be identified with that ID number only. Data storage will occur in a secured online data storage system and at Dr. Cahill's laboratory at the University of Wisconsin – Milwaukee. A sheet linking your name, and ID number will be stored in a secure, locked file cabinet separate from all other research data at UWM. This record linking your name to research data through the I.D. number will be destroyed after one year. After the record is destroyed there will be no way to link your name to your responses. The data in the computer will be referenced by code number only and destroyed after a period of 10 years. Audiotaped sessions will be stored electronically on a password-protected computer, will be labeled with your I.D. number, and will be kept indefinitely.

Data will be retained on the Qualtrics website and will be deleted after one year. However, data may exist on backups or server logs beyond the timeframe of this research project. Data identified by id only will be transferred from the survey site and saved on a password protected computer and in an encrypted format indefinitely.

8. Alternatives

Are there alternatives to participating in the study? If you do not want to participate you are free to not sign this informed consent or withdraw from the study at any time. Doing so will not affect your ability to participate in future studies through University of Wisconsin-Milwaukee or the Practice Ground community.

9. Voluntary Participation and Withdrawal

What happens if I decide not to be in this study? Your participation in this study is entirely voluntary. You may choose not to take part in this study. If you decide to take part, you can change your mind later and withdraw from the study. You are free to not answer any questions or withdraw at any time. Your refusal to take part in the study will not change any present or future relationships with the University of Wisconsin Milwaukee.

10. Questions

Who do I contact for questions about this study? For more information about the study or the study procedures or treatments, or to withdraw from the study, contact:

Shawn Cahill, Ph.D.

Cahill@uwm.edu

Who do I contact for questions about my rights or complaints towards my treatment as a research subject? The Institutional Review Board may ask your name, but all complaints are kept in confidence.

Institutional Review Board

Human Research Protection Program

Department of University Safety and Assurances

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11. Signatures

Research Subject's Consent to Participate in Research:

To voluntarily agree to take part in this study, you must sign on the line below. If you choose to take part in this study, you may withdraw at any time. You are not giving up any of your legal rights by signing this form. Your signature below indicates that you have read or had read to you this entire consent form, including the risks and benefits, and have had all of your questions answered, and that you are 18 years of age or older.

_____

Printed Name of Subject/ Legally Authorized Representative

_____ _____

Signature of Subject/Legally Authorized Representative Date

Research Subject's Consent to Audio/Video/Photo Recording:

It is okay to audiotape me while I am in this study and use my audiotaped data in the research.

Please initial: ____Yes ____No

Principal Investigator (or Designee)

I have given this research subject information on the study that is accurate and sufficient for the subject to fully understand the nature, risks and benefits of the study.

_____ _____

Printed Name of Person Obtaining Consent Study Role

_____ _____

Signature of Person Obtaining Consent Date

Appendix C

Fidelity Checklist - Session 1: Strategies Targeting Avoidance

Agenda:

	Activity	Time	Completed
1	Introduction: From Ice Breaker to Consent and Confidentiality	15 minutes	
2	New skill introduction: Strategies Targeting Avoidance	15 minutes	
3	Modeling	15 minutes	
4	Rapid Fire Real Play	15 minutes	
5	General discussion	10 minutes	
6	Second Rapid Fire Real Play (if time allowed)	15 minutes	
7	Assign homework: Choose an activity that is avoided	5 minutes	

Modeling:

Instruction: Please identified whether or not each training activity was completed during modeling in the "Completed" column below.

	Activity	Completed (Yes/No)
1	Ask one trainee to be the client	
2	Refer to the BA micro skills competence criteria below when you model BA assessment	
3	Ask trainees to use the BASA Checklist during modeling to identify whether or not the targeted BA micro-skills are implemented	
4	Conduct modeling (approximately 15 minutes)	

Rapid-Fire Real Play:

Instruction: Please identified whether or not each training activity was completed during the Rapid-Fire Real Play in the "Completed" column below.

	Activity	Completed (Yes/No)
1	Ask one trainee to be the client	
2	Explain that the rest of the trainees will act as the therapists	
3	Provide approximately 30 seconds for each trainee to implement BA micro-skills for BA assessment	
4	Conduct Rapid-Fire Real Play (approximately 15 minutes)	
5	If there is time, guide trainees to continue implementing micro-skills that have not been performed or implemented adequately	

Handouts for Trainees:

1) BASA Checklist for modeling and real play exercise
   *Note: These handouts for trainees will be emailed to participants by Ajeng.

Appendix D

Therapist Demographics Form

Enter your therapist ID number here: _____

Enter today's date here (MM/DD/YY): _____

1. Gender
___M
___F

2. Age: _____

3. Ethnicity (check all that apply):

___White/ Caucasian/ European American
___Black/African-American
___Non-white Hispanic
___South Asian
___Middle Eastern
___East Asian
___Southeast Asian
___Native American
___Pacific Islander
___Other: _____

4. What is your highest degree?
___High School
___Associate's Degree
___BA/BS
___MA/MS/MPH
___PhD/PsyD
___MD

5. Which option best describes your position?
___ Graduate student
___ Pre-degree internship
___ Post-degree/pre-licensure internship/fellowship/residency
___ Other (please specify): _____

6. What type of license do you hold?
___ None
___ Licensed Clinical Social Worker
___ Marriage and Family Therapist

___ Psychiatric Nurse Practitioner
___ Psychologist
___ Psychiatrist
___ Other (specify) _____

7. How many years have you treated psychotherapy clients?
___ 1
___ 2
___ 3
___ 4
___ 5
___ 6 or more

8. How many hours per week do you spend providing psychotherapy to clients?
___ 0-5 hours
___ 6-10 hours
___11-20 hours
___ 21-30 hours
___ 31-40 hours
___ 40+ hours

9. Which best describes your work setting?
___ Inpatient unit
___ Residential program
___ Partial hospitalization/day program
___ Outpatient mental health clinic
___ Community mental health service program
___ Training clinic
___ Group private practice
___ Individual private practice
___ Other (please specify):_____ _____

10. Which treatment modalities do you regularly provide? (Check all that apply)
___ Individual
___ Couples
___ Family
___ Group

11. What is the age range of clients that you regularly treat? (Check all that apply)
___ Children (0-12)
___ Adolescents (13-17)
___ Adults (18-65)
___ Older adults (65+)

12. Which ethnic/minority populations do you regularly treat? (Check all that apply)
___ White/Caucasian/European American

___ Asian-American/Pacific Islander
___ Middle Eastern
___ Black/African American
___ Non-white Hispanic or Latino/a
___ Native American
___ Gay/Lesbian/Bisexual/Transgender
___ Other (please specify): _____

13. Which of the following presenting problems do you regularly treat? (Check all that apply)
___ Major depressive disorder/dysthymia
___ Bipolar disorder/spectrum
___ Anxiety disorders
___ Trichotillomania, skin picking
___ Psychotic disorders (including schizophrenia)
___ Somatoform disorders (including hypochondriasis)
___ Chronic physical illnesses
___ Sleep disorders
___ Eating disorders
___ Pervasive developmental disorders/learning disorders/mental retardation
___ Substance use/dependence
___ Marital, relationship difficulties
___ Adjustment disorders
___ Axis II personality disorders (including borderline personality disorder)
___ Other (please specify): _____

14. Do you provide psychotherapy in a language other than English? Yes No
If Yes,

a. please specify language(s)_____
b. what percent of your caseload receives psychotherapy in another language (0-100%)?
_____

15. How technologically savvy/skilled would you describe yourself as being?
___ Not at all. Do not use a computer.
___ Slightly. Use a computer for limited purposes, but do not often use email or the internet.
___ Moderately. Use email and the internet regularly, though I am often not comfortable with unfamiliar uses.
___ Very. Use email and the internet regularly for many purposes and feel comfortable learning new uses.

16. Do you have access to a computer in your office? Yes No

17. Do you have access to the internet in your office? Yes No

18. Do you use a PDA (e.g., Palm pilot)? Yes No

19. Do you have a smartphone (e.g., iPhone, Blackberry)? Yes No

20. How much have you been trained to use Behavioral Activation treatment for depression?.
___ Very Low
___ Low
___ Average
___ High
___ Very High

If you have received some training in Behavioral Activation, what kind of training have your received?
_____
_____

21. Rate your knowledge on Behavioral Activation treatment for depression.
___ Very low
___ Low
___ Average
___ High
___ Very High

22. Rate your ability/skill to use Behavioral Activation strategies with your clients.
___ Very low
___ Low
___ Average
___ High
___ Very High

23. Have you used Behavioral Activation with your clients in the past? Yes
No

If yes, please answer the questions below:
a. When did you begin implementing this treatment?
b. Roughly what percentage of clients with depressive symptoms have you implemented Behavioral Activation with since you first used Behavioral Activation ?
___ <10%
___ 10-25%
___ 25-50%
___ 50-75%
___ 75-100%

24. What treatments do you currently use with your clients who show depressive symptoms?

_____
_____
_____
_____
_____

25. Which of the statements below most accurately describe your opinions and feelings about Behavioral Activation? (Please check all that apply).
___I have never heard of BA, and I am skeptical of it
___I have never heard of BA, and I have no opinion about it
___I have heard of BA, and am skeptical of it
___I have heard of BA but have no opinion on it
___I have heard negative things about BA, and am hesitant to use it in my practice
___I have heard positive things about BA, and believe it may be useful for some of my clients
___I have learned the basics of BA and it is intuitively appealing to me.
___I have learned the basics of BA and it "makes sense" to me.

26. Have you ever attended training for other Evidence Based Treatments? Yes
No

If yes, please answer the questions below:
a. What treatments have you attended training for?

_____
_____
_____

b. How often have you implemented the new practices you learned from these trainings into your own clinical practice?
___<10%
___10-25%
___25-50%
___50-75%
___75-100%

Appendix E

Behavioral Activation Skills Assessment

Providing BA Rationale

(Rat 1) Assessed and discussed negative life experiences

0	2	4	6
• Therapist did not assess and discuss negative life experiences.	• Therapist assessed and discussed one negative life experience.	• Therapist assessed and discussed multiple negative life experience.	• Therapist assessed and discussed multiple life experiences. • Therapist concretely labeled the negative life experiences as the trigger of depressive symptoms.

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(Rat 2) Assessed and discussed emotional responses (feeling elements of depression)

0	2	4	6
• Therapist did not assess and discuss emotional responses (feeling elements of depression)	• Therapist assessed and discussed one emotional response.	• Therapist assessed and discussed multiple emotional responses.	• Therapist assessed and discussed multiple emotional responses. • Therapist concretely labeled these emotions as a response to negative life experiences.

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(Rat 3) Assessed and discussed behavioral responses (action elements, secondary coping, avoidance)

0	2	4	6
• Therapist did not assess and discuss behavioral responses (action elements, secondary coping, avoidance).	• Therapist assessed and discussed one behavioral response.	• Therapist assessed and discussed multiple behavioral responses.	• Therapist assessed and discussed multiple behavioral responses. • Therapist concretely labeled these behaviors as a response to negative life experiences and emotional responses.

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(Rat 4) Validates emotional and behavioral responses as natural, normal, common

0	2	4	6
• Therapist did not validate emotional and behavioral responses as natural, understandable, and common. • Therapist used a language and/or a tone that was blaming and judgmental when discussing emotional and behavioral responses.	• Therapist only acknowledged emotional and behavioral responses towards negative life experiences but did not validate these responses as natural, understandable, and common. • Validation was not conveyed in therapist's tone.	Therapist did one of these two: • Therapist validated emotional responses towards negative life experiences as natural, understandable, and common. OR • Therapist validated behavioral responses towards negative life experiences as natural, understandable, and common. • Validation was moderately conveyed in therapist's tone.	• Therapist validated both emotional and behavioral responses towards negative life experiences as natural, understandable, and common. • Validation was optimally conveyed in therapist's tone.

The therapist did:

_____

_____

The therapist did not do:

_____

(Rat 5) Discuss the three-circle-model of depression and how behavioral responses can perpetuate problems (the spiral or cycle of depression)

0	2	4	6
• Therapist did not discuss the relationship between negative life experiences, emotional responses, and behavioral responses. • Therapist did not discuss have behavioral responses can perpetuate problems and may lead to more negative life experiences.	• Therapist vaguely discussed the relationship between negative life experiences, emotional responses, and behavioral responses. • Therapist vaguely discussed how behavioral responses can perpetuate problems and may lead to more negative life experiences. • Therapist did not include the client in the conversation. • Therapist did not use the client's specific experiences when discussing the cycle of depression.	• Therapist discussed the relationship between negative life experiences, emotional responses, and behavioral responses. • Therapist discussed how behavioral responses can perpetuate problems and may lead to more negative life experiences. • Therapist did not include the client in the conversation. • Therapist did not use the client's specific experiences when discussing the cycle of depression.	• Therapist discussed the relationship between negative life experiences, emotional responses, and behavioral responses. • Therapist discussed how behavioral responses can perpetuate problems and may lead to more negative life experiences. • Therapist included the client in the conversation. • Therapist used the client's specific experiences when discussing the cycle of depression.

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(Rat 6) Explained the goal of BA: activation as alternative to natural behavioral responses

0	2	4	6
• Therapist did not explain the goal of BA to use activation as an alternative to natural behavioral responses/depressed behaviors to break the cycle of depression.	• Therapist vaguely explained the goal of BA to use activation as an alternative to natural behavioral responses/depressed behaviors to break the cycle of depression. • Therapist did not include the client and his/her experiences in the conversation. • Therapist did not provide any example of activation.	• Therapist generally explained the goal of BA to use activation as an alternative to natural behavioral responses/depressed behaviors to break the cycle of depression. • Therapist did not include the client and his/her experiences in the conversation. • Therapist did not provide any example of activation.	• Therapist concretely explained the goal of BA to use activation as an alternative to natural behavioral responses/depressed behaviors to break the cycle of depression. • Therapist included the client and his/her experiences in the conversation. • Therapist provided some examples of activation.

The therapist did:

_____

_____

The therapist did not do:

_____

(Rat 7) Used the client's language instead of jargon

0	2	4	6
• Therapist used many jargons on multiple occasions. • Therapist did not use a language that is clear and understandable.	• Therapist used some jargons on some occasions. • Therapist used a language that was somewhat difficult to understand.	• Therapist avoided using jargon and if jargon was used, he/she tried to explain its meaning. • Therapist used a language that is clear and understandable.	• Therapist did not use any jargon. • Therapist used a language that is clear and understandable.

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(Rat 8) Sought feedback and verified understanding of the rationale

0	2	4	6
• Therapist did not seek feedback	• Therapist vaguely sought feedback	• Therapist sought general feedback from the client (e.g., yes/no questions)	• Therapist sought concrete feedback from the client (e.g., open-ended questions).

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(Rat 9) "Just do it: Discussed that therapist will coach, guide with strategies to help activation

0	2	4	6
• Therapist did not provide any response to the challenge. • Therapist provided a response that was blaming/judgmental, inaccurate, or contradictory to the BA model.	• Therapist provided a vague response and did not address the challenge in a concrete and specific manner.	• Therapist acknowledged the difficulty of activation. • Therapist did not highlight his/her role in providing specific strategies to help activation. • Therapist provided at least one strategy to help activation. • Therapist did not use the client's experiences.	• Therapist acknowledged the difficulty of activation. • Therapist highlighted his/her role in providing specific strategies to help activation. • Therapist provided at least one strategy to help activation. • Therapist used the client's experiences.

The therapist did:

_____

_____

_____

The therapist did not do:

_____

_____

_____

(Rat 10) "Inside out": Offered rationale for outside-in approach in BA

0	2	4	6
• Therapist did not provide any response to the challenge. • Therapist provided a response that was blaming/judgmental, inaccurate, or contradictory to the BA model.	• Therapist provided a vague response and did not address the challenge in a concrete and specific manner.	• Therapist provided a clear rationale for changing one's behaviors despite negative feelings. • Therapist did not provide any example of changing one's behaviors despite negative feelings. • Therapist did not use the client's experiences.	• Therapist provided a clear rationale for changing one's behaviors despite negative feelings. • Therapist provided at least one example of changing one's behaviors despite negative feelings. • Therapist used the client's experiences.

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(Rat 11) "Broken brain": Explained how activation can change the brain

0	2	4	6
• Therapist did not provide any response to the challenge. • Therapist provided a response that was blaming/judgmental, inaccurate, or contradictory to the BA model.	• Therapist provided a vague response and did not address the challenge in a concrete and specific manner.	• Therapist did not acknowledged the role of physiological factors in depression. • Therapist provided a clear rationale why changing one's behavior may affect physiology. • Therapist did not provide any example of how changing one's behavior may affect physiology. • Therapist did not use the client's experiences.	• Therapist acknowledged the role of physiological factors in depression. • Therapist provided a clear rationale why changing one's behavior may affect physiology. • Therapist provided at least one example of how changing one's behavior may affect physiology. • Therapist used the client's experiences.

The therapist did:

_____

_____

The therapist did not do:

_____

Assessment

(Ass 1) Assessed behaviors that the client used to do but stopped doing and/or would like to start doing

0	2	4	6
• Therapist did not assess activities that the client used to do but stopped doing. • Therapist did not assess activities that the client would like to start doing.	• Therapist vaguely assessed activities that the client used to do but stopped doing. • Therapist vaguely assessed activities that the client would like to start doing.	• Therapist briefly assessed activities that the client used to do but stopped doing. • Therapist briefly assessed activities that the client would like to start doing. • Therapist did not cover all relevant areas of the client's life.	• Therapist thoroughly assessed activities that the client used to do but stopped doing. • Therapist thoroughly assessed activities that the client would like to start doing. • Therapist covered all relevant areas of the client's life.

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(Ass 2) Assessed avoidance behaviors (including subtle) of which the client is doing more

0	2	4	6
• Therapist did not assess avoidance behaviors that the client is doing more.	• Therapist vaguely assessed avoidance behaviors that the client is doing more.	• Therapist briefly defined avoidance behaviors. • Therapist prompted client once when assessing avoidance behaviors.	• Therapist clearly defined avoidance behaviors. • Therapist prompted client several times when assessing avoidance behaviors.

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(Ass 3) Discussed the relation between activities/life contexts and mood

0	2	4	6
• Therapist did not discuss the relation between activities and mood.	• Therapist vaguely discussed the relation between activities and mood. • Therapist did not make relevant connection to the client's experiences.	• Therapist clearly discussed the relation between activities and mood. Only met one of these: • Therapist only discussed how the client's avoidance/depressed behaviors affect his/her mood. OR • Therapist only discussed how the client's non-depressed behaviors affect his/her mood.	• Therapist clearly discussed the relation between activities and mood. • Therapist discussed how the client's avoidance/depressed behaviors affect his/her mood. • Therapist discussed how the client's non-depressed behaviors affect his/her mood.

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(Ass 4) Assessed, discussed and commented on client's long-term goals, values, and/or aspirations in behaviorally concrete fashion

0	2	4	6
• Therapist did not assess, discuss, or comment on client's long-term goals, values, and/or aspirations.	• Therapist vaguely assessed, discussed, or commented on client's long-term goals, values, and/or aspirations.	• Therapist briefly assessed, discussed, or commented on client's long-term goals, values, and/or aspirations. • Therapist did not cover all relevant areas of the client's life.	• Therapist thoroughly assessed, discussed, or commented on client's long-term goals, values, and/or aspirations. • Therapist covered all relevant areas of the client's life.

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(Ass 5) Assessed, discussed and commented on client's core issues* in behaviorally concrete fashion.

0	2	4	6
• Therapist did not assess, discuss, or comment on client's core issues.	• Therapist vaguely assessed, discussed, or commented on client's core issues.	• Therapist briefly assessed, discussed, or commented on client's core issues. • Therapist briefly discussed how targeting the core issues with activation can help reduce depressive symptoms.	• Therapist thoroughly assessed, discussed, or commented on client's core issues. • Therapist clearly discussed how targeting the core issues with activation can reduce depressive symptoms.

**Core issues are specific negative life events (e.g., unemployment, relationship conflict, chronic illness) that strongly related or triggered the depressive symptoms.*

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(Ass 6) Assessed, discussed, and commented on routine disruptions in behaviorally concrete fashion

0	2	4	6
• Therapist did not assess, discuss, or comment on routine disruptions.	• Therapist vaguely assessed, discussed, or commented on routine disruptions.	• Therapist prompted client once when assessing routine disruption. • Therapist briefly discussed the importance of maintaining a routine.	• Therapist prompted client several times when assessing routine disruption. • Therapist clearly discussed the importance of maintaining a routine.

The therapist did:

_____

_____

The therapist did not do:

_____

_____

Activity Scheduling

(AS 1) Collaboratively worked with client to identify activities to work on

0	2	4	6
• Therapist did not discuss any activity to schedule.	• Therapist did not collaborate with the client to identify activities to schedule and simply chose the activities for the client. • Therapist did not include the client in the discussion.	• Therapist collaborated with the client to identify activities to schedule. • Therapist only identified activities that have similar function (e.g., only pleasurable activities).	• Therapist collaborated with the client to identify activities to schedule. • Therapist identified activities that have diverse function (e.g., pleasurable activities and value-based activities).

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(AS 2) Considered task difficulty and broke assignments into smaller parts

0	2	4	6
• Therapist did not consider task difficulty. • Therapist did not break any assignments into smaller parts.	• Therapist vaguely considered task difficulty. • Therapist did not break the assignment concretely into smaller parts.	• Therapist did not always consider task difficulty. • Therapist broke only at least one assignment down into smaller parts.	• Therapist always considered task difficulty. • Therapist broke at least one of the assignments down into smaller parts.

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(AS 3) Scheduled at least one activity concretely (e.g., what, where, when, with whom?)

0	2	4	6
• Therapist did not schedule the what, where, when, and with whom of any activity.	• Therapist scheduled at least one activity vaguely. • Therapist did not include the client in the discussion.	• Therapist scheduled at least one activities where he/she discussed some, but not all, of the what, where, when, and with whom. • Therapist generally included the client in the discussion.	• Therapist scheduled at least one activities where he/she discussed all of the what, where, when, and with whom. • Therapist always included the client in the discussion.

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(AS 4) Identified obstacles to at least one activity

0	2	4	6
• Therapist did not identify obstacle to any of the targeted activities.	• Therapist prompted client to identify obstacles to the targeted activity once. • Therapist did not offer other potential obstacles that the client did not think of.	• Therapist prompted client to identify obstacles to the targeted activity multiple times. • Therapist did not offer other potential obstacles that the client did not think of.	• Therapist prompted client to identify obstacles to the targeted activities multiple times. • Therapist also offered other potential obstacles that the client did not think of.

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(AS 5) Identified solutions to at least one obstacle

0	2	4	6
• Therapist did not identify any solution to any of the potential obstacles.	• Therapist prompted client to identify solution to the potential obstacle once. • Therapist did not offer any solution to the potential obstacle that the client did not think of.	• Therapist prompted client to identify solution to the potential obstacle multiple times. • Therapist did not offer any solution to the potential obstacle that the client did not think of.	• Therapist prompted client to identify solution to the potential obstacle multiple times. • Therapist offered some solution to the potential obstacle that the client did not think of.

The therapist did:

_____

_____

The therapist did not do:

_____

_____

Strategies Targeting Avoidance

(Avo 1) Helps client distinguish triggers, responses and avoidance patterns (3 circles)

0	2	4	6
• Therapist did not help client distinguish triggers, responses, and avoidance patterns.	• Therapist vaguely helped client distinguish triggers, responses, or avoidance patterns, but not all three.	• Therapist clearly helped client distinguish triggers, responses, and avoidance patterns. • Therapist did not use the client's experiences in the discussion.	• Therapist clearly helped client distinguish triggers, responses, and avoidance patterns. • Therapist used the client's experiences in the discussion.

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(Avo 2) Validated responses and avoidance patterns as natural, understandable, and common.

0	2	4	6
• Therapist did not validate responses an avoidance patterns as natural, understandable, and common. • Therapist used a language and/or a tone that was blaming and judgmental when discussing avoidance.	• Therapist only acknowledged responses and avoidance patterns but did not validate these responses as natural, understandable, and common. • Validation was not conveyed in therapist's tone.	Therapist did one of these two: • Therapist validated responses as natural, understandable, and common. OR • Therapist validated avoidance pattern as natural, understandable, and common. --- • Validation was moderately conveyed in therapist's tone.	• Therapist validated responses and avoidance patterns as natural, understandable, and common. • Validation was optimally conveyed in therapist's tone.

The therapist did:

_____

_____

The therapist did not do:

_____

(Avo 3) Identified and discussed the short term benefits but long term problems associated with avoidance

0	2	4	6
• Therapist did not identify and discuss the short term benefits and long term problems associated with avoidance.	• Therapist only stated the short term benefits of avoidance. OR • Therapist only stated the long term problems of avoidance.	• Therapist identified and discussed the short term benefits and long term problems of avoidance. • Therapist did not use the client's experiences.	• Therapist identified and discussed the short term benefits and long term problems of avoidance. • Therapist used the client's experiences.

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(Avo 4) Discussed acting even when the client does not feel like acting ("acting according to plan not mood" or "outside-in" or something similar)

0	2	4	6
• Therapist did not discuss acting even when the client does not feel like acting.	• Therapist vaguely discussed the importance of acting even when the client does not feel like acting. • Therapist did not explain why acting despite one's mood is beneficial to cope with depression.	• Therapist discussed the importance of acting even when the client does not feel like acting. • Therapist explained why acting despite one's mood is beneficial to cope with depression. • Therapist did not give any examples. • Therapist did not use the client's experiences.	• Therapist discussed the importance of acting even when the client does not feel like acting. • Therapist explained why acting despite one's mood is beneficial to cope with depression. • Therapist gave at least one example. • Therapist used the client's experiences. .

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(Avo 5) Connected activity with client's goals and values

0	2	4	6
• Therapist did not connect activity with client's goals and values.	• Therapist vaguely connected activity with client's goals and values	• Therapist discussed and reviewed at least one of the client's long term goal or value and made a strong connection between his/her goal or value and the targeted activity. • Therapist did not use any strategy to make the client's goal or value salient while the client is going to engage in the targeted activity.	• Therapist discussed and reviewed at least one of the client's long term goal or value and made a strong connection between his/her goal or value and the targeted activity. • Therapist used some strategy to make the client's goal or value salient while the client is going to engage in the targeted activity.

The therapist did:

_____

_____

The therapist did not do:

_____

_____

(Avo 6) Scheduled activity concretely taking avoidance into consideration ("alternate coping," "trac,"considers task difficulty and breaks activity down)

0	2	4	6
• Therapist did not schedule activity concretely, taking avoidance into consideration.	• Therapist vaguely scheduled the activity and did not use specific activity scheduling strategies.	• Therapist scheduled the activity and discussed some, but not all, of the what, where, when, with whom. • Therapist did not include the client in the discussion.	• Therapist scheduled the activity and discussed all of the what, where, when, with whom. • Therapist included the client in the discussion.

The therapist did:

_____

_____

The therapist did not do:

_____

Appendix F

BASA Scenarios

Scenario 1: Female 01

Client's Background Information:

Your client is a 31-year-old Caucasian who is married and has two children. She was laid off from her job two months ago as a nursing assistant because of cuts at the hospital and she is currently unemployed. She presented in therapy with symptoms of major depression and no other co-morbid disorders. She has never been depressed before. Her husband works and she takes care of the home and children. She has a 10-year-old boy and a 6-year-old girl. She spends her day taking care of the children and doing house chores. However, the frequency has decreased significantly because she rather stays in her bed or watches television.

Assessment and Providing BA Rationale:

In session 1, last week, you completed a diagnostic interview and gave Major Depressive Disorder as the only diagnosis for your client. You also asked your client to complete the activity monitoring sheet at the end of session 1.

For this role play, it is the beginning of session 2. Your client came in with a completed activity monitoring sheet. Your task is to complete the following in the next 25 minutes:

- Gather key information about your client in a manner consistent with assessment in BA. Your goal here is to cover the important areas of assessment in BA? What do you need to assess to develop a good BA plan? What are the important areas or questions to ask?
- Briefly discuss the completed activity monitoring sheet. What are the important aspects of the activity monitoring sheet to comment on or ask about?
- Provide a rationale for BA (10 minutes). What are the important things to say about your clients problems and the BA treatment approach to explain the rationale for treatment to your client?

Strategies Targeting Avoidance and Activity Scheduling

It is session 7. You have started Behavioral Activation. So far, your client successfully went to the career center and received training on how to post her resume online and find possible job openings. Her assignments last week were to 1) post her resume online, 2) go for a 20-minute run, and 3) watch a movie with her husband. She completed the last two activities, however, avoided posting her resume online. Your task is to complete the following in the next 25 minutes:

- Discuss the incomplete activity using BA strategies to target avoidance (12 minutes)
- Schedule one or two new activities (13 minutes)

Activity Monitoring Sheet

Please complete this activity monitoring sheet. On each column indicate the activity that you do at different hours of the day, rate your productivity and pleasure for that activity, and also indicate your mood. You could also describe your mood next to your rating (e.g., sad, nervous, frustrated, happy)

Productivity/Pleasure/Mood rating:
1 2 3 4 5 6 7 8 9 10
Least Most

Day of Week:	**Monday** **Productivity/Pleasure/Mood**	**Tuesday** **Productivity/Pleasure/Mood**	**Wednesday** **Productivity/Pleasure/Mood**
6 - 8am	Prepare kids for school 3/1/1 (hate)	Sleep	Sleep
8 - 12 pm	Sleep	Sleep	Woke up at 10am 1/1/1 (down)
12 - 2pm	Watched TV 2/4/1 (sad)	Talked to mom 5/6/6 (Happy)	Doctor 5/3/3
3 - 6 pm	Watched TV 2/4/1 (sad)	Cleaned up 4/1/2	Nap
6 - 7 pm	Prepared Dinner 5/5/5 (Accomplished)	Watched TV 1/1/1 (sad)	Drive through dinner 2/3/3
7-9 pm	Helped children with homework 4/1/2	Watched TV 1/1/1 (Sad)	Laundry 4/1/1 (Tired)
9 pm - 1am	Watched TV, Sleep at 1am 1/1/1	Went to bed	Watched TV, sleep at 2:30am 1/1/1 (sad, tired)

Scenario 2: Female 02

Your client is a 27-year-old Asian-American graduate student, trying to get her Ph.D. in English. She is in her third year of the program and just found out two months ago that she will not get any financial assistantship because she did not defend her Master's thesis on time. She presented in therapy with symptoms of major depression and no other co-morbid disorders. She has never been depressed before. Her primary social supports are her family members who live in a different state. She has been avoiding to work on her Master's thesis. She spends most of her day sitting in front of her computer, browsing the internet.

Assessment and Providing BA Rationale:

In session 1, last week, you completed a diagnostic interview and gave Major Depressive Disorder as the only diagnosis for your client. You also asked your client to complete the activity monitoring sheet at the end of session 1.

For this role play, it is the beginning of session 2. Your client came in with a completed activity monitoring sheet. Your task is to complete the following in the next 25 minutes:

- Gather key information about your client in a manner consistent with assessment in BA. Your goal here is to cover the important areas of assessment in BA? What do you need to assess to develop a good BA plan? What are the important areas or questions to ask?
- Briefly discuss the completed activity monitoring sheet. What are the important aspects of the activity monitoring sheet to comment on or ask about?
- Provide a rationale for BA (10 minutes). What are the important things to say about your clients problems and the BA treatment approach to explain the rationale for treatment to your client?

Strategies Targeting Avoidance and Activity Scheduling

It is session 7. You have started Behavioral Activation. So far, your client successfully went to the financial aid office, discussed her options to receive financial assistantship, and wrote 5 pages for her Master's thesis. Her assignments last week were to 1) write two more pages for her Master's thesis, 2) call her mother and sister, and 3) play her guitar for 30 minutes. She completed the last two activities, however, avoided writing two pages for her Master's thesis. Your task is to complete the following in the next 25 minutes:

- Discuss the incomplete activity using BA strategies to target avoidance (12 minutes)
- Schedule one or two new activities (13 minutes)

Activity Monitoring Sheet

Please complete this activity monitoring sheet. On each column indicate the activity that you do at different hours of the day, rate your productivity and pleasure for that activity, and also indicate your mood. You could also describe your mood next to your rating (e.g., sad, nervous, frustrated, happy)

Productivity/Pleasure/Mood rating:
1 2 3 4 5 6 7 8 9 10
Least Most

Day of Week:	**Monday** **Productivity/Pleasure/Mood**	**Tuesday** **Productivity/Pleasure/Mood**	**Wednesday** **Productivity/Pleasure/Mood**
6 - 8am	Stayed up all night 1/1/1 (overly tired, sad)	Slept	Slept
8 - 12 pm	Slept	Slept	Woke up at 10am 1/1/1 (down)
12 - 2pm	Watched TV 2/4/1 (sad)	Talked to mom 5/6/6 (Happy)	Talked to advisor 5/3/3
3 - 6 pm	Watched TV 2/4/1 (sad)	Cleaned up 4/1/2	Nap
6 - 7 pm	Prepared Dinner 5/5/5 (Accomplished)	Watched TV 1/1/1 (sad)	Drive through dinner 2/3/3
7-9 pm	Played guitar (10 minutes) 4/4/2	Watched TV 1/1/1 (Sad)	Laundry 4/1/1 (Tired)
9 pm - 1am	Watched TV, Sleep at 1am 1/1/1	Went to bed	Watched TV, sleep at 2:30am 1/1/1 (sad, tired)

Scenario 3: Male 01

Your client is a 46-year-old black prosecuting lawyer and his wife of 18 years was diagnosed with breast cancer two months ago. Since his wife has to go through treatment, he becomes the primary care taker for her and is now responsible for most, if not all, of the household chores. He presented in therapy with symptoms of major depression and no other co-morbid disorders. He has a 16-year-old daughter who does not really help around the house. He spends his day taking care of his wife, working, and doing house chores with little time for anything else.

Assessment and Providing BA Rationale:

In session 1, last week, you completed a diagnostic interview and gave Major Depressive Disorder as the only diagnosis for your client. You also asked your client to complete the activity monitoring sheet at the end of session 1.

For this role play, it is the beginning of session 2. Your client came in with a completed activity monitoring sheet. Your task is to complete the following in the next 25 minutes:

- Gather key information about your client in a manner consistent with assessment in BA. Your goal here is to cover the important areas of assessment in BA? What do you need to assess to develop a good BA plan? What are the important areas or questions to ask?
- Briefly discuss the completed activity monitoring sheet. What are the important aspects of the activity monitoring sheet to comment on or ask about?
- Provide a rationale for BA (10 minutes). What are the important things to say about your clients problems and the BA treatment approach to explain the rationale for treatment to your client?

Strategies Targeting Avoidance and Activity Scheduling

It is session 7. You have started Behavioral Activation. So far, your client successfully spent 30 minutes a day to read a book and took his daughter to a movie. His assignments last week were to 1) play golf with his co-workers, 2) got a haircut, and 3) call his brother. He completed the last two activities, however, avoided playing golf with his co-workers. Your task is to complete the following in the next 25 minutes:

- Discuss the incomplete activity using BA strategies to target avoidance (12 minutes)
- Schedule one or two new activities (13 minutes)

Activity Monitoring Sheet

Please complete this activity monitoring sheet. On each column indicate the activity that you do at different hours of the day, rate your productivity and pleasure for that activity, and also indicate your mood. You could also describe your mood next to your rating (e.g., sad, nervous, frustrated, happy)

Productivity/Pleasure/Mood rating:
1 2 3 4 5 6 7 8 9 10
Least Most

Day of Week:	**Saturday** **Productivity/Pleasure/Mood**	**Sunday** **Productivity/Pleasure/Mood**	**Monday** **Productivity/Pleasure/Mood**
6 - 8am	Stayed up all night 1/1/1 (overly tired, sad)	Woke up at 5am	Woke up at 7am
8 - 12 pm	Sleep	House chores 2/2/2 (Numb)	Worked 6/1/1 (down)
12 - 2pm	Stayed in bed with wife 2/4/1 (sad)	Talked to brother 5/6/6 (Happy)	Worked 6/1/1 (down)
3 - 6 pm	Laundry 2/2/1 (sad)	Cleaned up, prepared dinner 4/1/2	Worked 6/1/1 (down)
6 - 7 pm	Prepared Dinner 2/2/2 (Numb)	Stayed in bed with wife 1/1/1 (sad)	Talked to daughter (30 minutes) 6/7/7 (Excited)
7-9 pm	Read a magazine (20 minutes) 4/6/5	Watched TV 1/1/1 (Sad)	Stayed in bed with wife 2/1/1 (Tired)
9 pm - 1am	Watched TV, Sleep at 1am 1/1/1	Went to bed	Watched TV, sleep at 2:30am 1/1/1 (sad, tired)

Scenario 4: Male 02

Your client is a 22 year-old Caucasian man who was a college basketball player. He broke his leg two months ago, which requires him to take a break from basketball for one year. He presented in therapy with symptoms of major depression and no other co-morbid disorders. His girlfriend and some friends from his basketball team are his primary social supports. Since the accident, he spends most of his time studying, working, physical therapy, with little time for anything else.

Assessment and Providing BA Rationale:

In session 1, last week, you completed a diagnostic interview and gave Major Depressive Disorder as the only diagnosis for your client. You also asked your client to complete the activity monitoring sheet at the end of session 1.

For this role play, it is the beginning of session 2. Your client came in with a completed activity monitoring sheet. Your task is to complete the following in the next 25 minutes:

- Gather key information about your client in a manner consistent with assessment in BA. Your goal here is to cover the important areas of assessment in BA? What do you need to assess to develop a good BA plan? What are the important areas or questions to ask?
- Briefly discuss the completed activity monitoring sheet. What are the important aspects of the activity monitoring sheet to comment on or ask about?
- Provide a rationale for BA (10 minutes). What are the important things to say about your clients problems and the BA treatment approach to explain the rationale for treatment to your client?

Strategies Targeting Avoidance and Activity Scheduling

It is session 7. You have started Behavioral Activation. So far, your client successfully taking a walk with his girlfriend regularly and spends 30 minutes a day to play guitar. His assignments last week were to 1) meet with his coach to discuss his comeback, 2) attend physical therapy, and 3) attend his friend's birthday party. He completed the last two activities, however, avoided meeting his coach. Your task is to complete the following in the next 25 minutes:

- Discuss the incomplete activity using BA strategies to target avoidance (12 minutes)
- Schedule one or two new activities (13 minutes)

Activity Monitoring Sheet

Please complete this activity monitoring sheet. On each column indicate the activity that you do at different hours of the day, rate your productivity and pleasure for that activity, and also indicate your mood. You could also describe your mood next to your rating (e.g., sad, nervous, frustrated, happy)

Productivity/Pleasure/Mood rating:
1 2 3 4 5 6 7 8 9 10
Least Most

Day of Week:	**Monday** **Productivity/Pleasure/Mood**	**Tuesday** **Productivity/Pleasure/Mood**	**Wednesday** **Productivity/Pleasure/Mood**
6 - 8am	Sleep	Sleep	Woke up at 5am 1/1/1 (Tired)
8 - 12 pm	Work 3/1/2	Sleep	Classes 1/1/1 (down)
12 - 2pm	Classes 1/4/1 (sad)	Played guitar for 30 minutes 5/6/6 (Happy)	Talked to coach 5/3/3
3 - 6 pm	Physiotherapy 2/4/1 (sad)	Cleaned up 4/1/2	Physiotherapy 2/4/1 (sad)
6 - 7 pm	Made dinner for girlfriend 5/5/5 (Accomplished)	Worked 1/1/1 (sad)	Worked 2/3/3
7-9 pm	Worked on assignment 5/3/2	Worked 1/1/1 (Sad)	Worked 4/1/1 (Tired)
9 pm - 1am	Worked on assignment 5/1/1	Went to bed	Worked on assignment 1/1/1 (sad, tired)

Appendix G

BA Implementation Measure

Enter your therapist ID number here: _____

Enter today's date here (MM/DD/YY): _____

How many clients did you see this week? _____

How many of these had depression as a significant problem?

This week, with how many clients did you try:

Providing a BA rationale with a "circle" model	
Assessments in BA to gather sources of information to guide activity, which may include informal interviewing, activity monitoring and values assessment	
Assigning activation assignments	
Targeting avoidance or rumination to maximize activity completion	

Appendix H

Self-Reported BA Confidence Measure

Enter your therapist ID number here: _____

Enter today's date here (MM/DD/YY): _____

In general, if you tried a technique, how confident did you feel with it:

	Did not try	Completely lacking confidence	Somewhat lacking confidence	Neutral	Somewhat confident	Very confident
Providing a BA rationale with a "circle" model						
Assessments in BA to gather sources of information to guide activity, which may include informal interviewing, activity monitoring and values assessment						
Assigning activation assignments						
Targeting avoidance or rumination to maximize activity completion						

Appendix I

Training Satisfaction Questionnaires

How helpful was the session?

- Not at all helpful
- Mostly, unhelpful
- Somewhat helpful
- Mostly helpful
- Extremely helpful

How likely are you going to incorporate [providing BA rationale/BA assessment/activity scheduling/strategies targeting avoidance] into your practice?

- I will not incorporate this strategy into my practice
- Most unlikely
- Unlikely
- Likely
- Most likely

How satisfied were you with the length of training session?

- Not at all satisfied
- Mostly, not satisfied
- Somewhat satisfied
- Mostly satisfied
- Completely satisfied

How satisfied were you with the Power Point slides?

- Not at all satisfied
- Mostly, not satisfied
- Somewhat satisfied
- Mostly satisfied
- Completely satisfied

Please rate the quality of this section of the class:

- Extremely poor
- Mostly Poor
- Moderate
- Mostly Good
- Excellent

Please rate the usefulness of this section of the class:

- Not useful at all
- Mostly not useful
- Useful
- Mostly useful
- Extremely useful

Was there anything about the training content that was not helpful?

Anything you would recommend to change or present differently?

Do you have any other general feedback?

Questions for participants receiving trainer-led training:

How satisfied were you with the didactic portion of the class?

- Not at all satisfied
- Mostly, not satisfied
- Somewhat satisfied
- Mostly satisfied
- Completely satisfied

How satisfied were you with the modeling portion of the class?

- Not at all satisfied
- Mostly, not satisfied
- Somewhat satisfied
- Mostly satisfied
- Completely satisfied

How satisfied were you with the experiential exercises of the class (e.g., rapid-fire real play)?

- Not at all satisfied
- Mostly, not satisfied
- Somewhat satisfied
- Mostly satisfied
- Completely satisfied

How satisfied were you with the feedback you received from the trainer when practicing the skills?

- o Not at all satisfied
- o Mostly, not satisfied
- o Somewhat satisfied
- o Mostly satisfied
- o Completely satisfied

How satisfied were you with the feedback you received from other trainees when practicing the skills?

- o Not at all satisfied
- o Mostly, not satisfied
- o Somewhat satisfied
- o Mostly satisfied
- o Completely satisfied

How satisfied were you with the online training (webinar) technology (e.g., chat room features, internet connection)?

- o Not at all satisfied
- o Mostly, not satisfied
- o Somewhat satisfied
- o Mostly satisfied
- o Completely satisfied

Questions for participants receiving self-paced training:

How satisfied were you with the self-paced aspect of the training where you can complete it on your own time?

- o Not at all satisfied
- o Mostly, not satisfied
- o Somewhat satisfied
- o Mostly satisfied
- o Completely satisfied

Curriculum Vitae

Ajeng J. Puspitasari, M. S.

FORMAL EDUCATION

Expected Ph.D. ***Clinical Psychology Major, Social and Health Psychology Minor***
University of Wisconsin-Milwaukee, Milwaukee, WI
Advisor: Jonathan W. Kanter, Ph.D.
Preliminary exams passed: August 8, 2012
Dissertation Title: *A Randomized Controlled Trial of an Online, Modular, Active Learning Training Program for Behavioral Activation Treatment for Depression*
Dissertation proposal passed: September 18, 2013
Dissertation defense passed: August 28, 2014
Expected graduation: 08/2015

M.S. ***Clinical Psychology***
University of Wisconsin-Milwaukee, WI
Advisor: Jonathan W. Kanter, Ph.D.
Master's Thesis: *A Randomized Pilot Investigation of an Online Behavioral Activation Walking Intervention*
Proposal Passed: July 15, 2010
Thesis defense passed: March 1, 2012
Degree granted: 05/2012

B.A. University of Minnesota-Morris, Morris, MN
Majors: Sociology, Anthropology, Human Services; Minor: Psychology
Senior Thesis (Sociology): *Non-formal Education as an Approach to Diminish Risky Behaviors among Street Children in Indonesia*
Thesis Advisor: Jennifer Rothchild, Ph.D.
Degree granted: 05/2007

PRE-DOCTORAL TRAINING

Internship Brown University Clinical Psychology Consortium, Providence, RI
APA-approved internship in Clinical Psychology
Psychology intern (Behavioral Medicine Track)
July 2014 – June 2015

AWARDS & HONORS

2015 Beck Institute Full Tuition Scholarship
2013 Distinguished Dissertation Fellowship for 2013-2014 academic year, University of Wisconsin-Milwaukee.

2013	Department of Psychology Summer Research Fellowship, University of Wisconsin-Milwaukee.
2013	Senate Appropriations Committee Travel Grant, University of Wisconsin-Milwaukee.
2013	Graduate School Travel Award, University of Wisconsin-Milwaukee.
2012	Outstanding Doctoral Student Professionalism Award, Milwaukee Area Psychological Association.
2012	The Margaret Bernauer Psychology Research Award, Wisconsin Psychological Association.
2012	Senate Appropriations Committee Travel Grant, University of Wisconsin-Milwaukee.
2012	Graduate School Travel Award, University of Wisconsin-Milwaukee.
2011	John and Lynn Schiek Awards, University of Wisconsin-Milwaukee, Milwaukee.
2011	Graduate School Travel Award, University of Wisconsin-Milwaukee.
2007	Scholars of the College Award, University of Minnesota-Morris, Morris.

RESEARCH ACTIVITIES

PUBLICATIONS

Peer-Reviewed Publications:

Puspitasari, A. J., Kanter, J. W., Koerner, K., Crowe, A. S., & Murphy, J. D. (2013). Developing an online, modular, active learning training program for behavioral activation. *Psychotherapy, 50* (2), 256-265.

Kanter. J. W., **Puspitasari, A. J.**, Santos, M. M. & Nagy, G. A. (2012). Behavioral Activation: History, Evidence and Promise. *British Journal of Psychiatry, 200,* 361-363.

Book Chapters:

Kanter, J. W., **Puspitasari, A. J.,** Santos, M. M., & Nagy, G. A. (2014). Social Work and Behavioral Activation. In B. Matthew (Eds.). Mindfulness and Acceptance in Social Work. Oakland, CA: New Harbinger Publications.

Kanter, J. W. & **Puspitasari, A. J.** (2012). Behavioral Activation. In W. O'Donohue & J. E. Fisher (Eds.). Core Principles of Cognitive Behavior Therapy. Hoboken, NJ: John Wiley.

In Preparation:

Puspitasari, A. J., Busch, A., Manos, R., Cahill, S., Koerner, K., Martell, C., & Kanter, J (in preparation). The efficacy of a trainer-led online training program for behavioral activation treatment.

Puspitasari, A. J. Busch, A., & Kanter, J. W (in preparation). A randomized investigation of an online behavioral activation walking intervention.

Putranto, A. K. & **Puspitasari, A. J.** (in preparation). The implementation of behavior therapy in clinical practice in Indonesia.

Nagy, G. A., Santos, M. M., Diéguez Hurtado, G., **Puspitasari, A. J**., Kanter, J. W., & Santiago-Rivera, A. (in preparation). Preliminary results of a bilingual, modular, active learning training of Behavioral Activation for Spanish-speaking community therapists.

PRESENTATIONS

Invited Talks:

Kanter, J. W. & **Puspitasari, A. J.** (2013, June). *Being a Scientifically Informed Mental Health Provider: Awareness of Recent Changes in the Diagnostic System and Evidence Based Treatment for Depression*. Presented at the University of Pancasila on June 11, 2013 in Jakarta, Indonesia.

Kanter, J. W. & **Puspitasari, A. J.** (2013, June). *Evidence Based Treatment for Depression*. Presented at the University of Gajah Mada on June 10, 2013 in Jogjakarta, Indonesia.

Puspitasari, A. J. (2013, April). *Living a Meaningful Life with Epilepsy*. Presented at a meeting of the Froedert Hospital Epilepsy Support Group on April 24, 2013 in Wauwatosa, WI.

Puspitasari, A.J. (2013, March). *Coping with Emotions Post Bariatric Surgery.* Presented at a meeting of the Froedert Hospital Bariatric Surgery Support Group on March 25, 2013 in Wauwatosa, WI.

Oral Presentations:

Puspitasari, A. J., Busch, A., Manos, R., Cahill, S., Koerner, K., Martell, C., Kanter, J. (2014, November). *A randomized controlled trial of an online, modular, active learning training program for behavioral activation treatment for depression*. Symposium was presented for the annual meeting of the Association of Behavioral and Cognitive Therapies, Philadelphia, PA.

Puspitasari, A. J., Kanter, J. W., Harper, S., Fero, L., Versal, M., Bowman, N. & Gutierrez, H. (2013, May). *The Implementation and Outcomes of Active Learning Strategies in an Online Training of Behavioral Activation Treatment for Depression*. Symposium was presented for the annual meeting of the Midwestern Psychological Association, Chicago, IL.

Puspitasari, A. J., & Kanter, J. W. (2013, May). *A Randomized Pilot Investigation of an Online Behavioral Activation Walking Intervention*. Paper was presented for the annual meeting of the Midwestern Psychological Association, Chicago, IL.

Nagy, G. A., **Puspitasari, A. J.**, & Kanter, J. W. (2013, April). *Is Online Training of Psychotherapy Really Better than Face-to-Face?* Symposium was presented for annual meeting of the Association of Graduate Students in Psychology at the University of Wisconsin-Milwaukee, Milwaukee, WI.

Puspitasari, A. J., Czajkowska, K. K., Kanter, J. W. (2012, April). *The Effect of an Online Behavioral Activation Walking Intervention on Physical Activity Level*. Symposium was presented for annual meeting of the Association of Graduate Students in Psychology at the University of Wisconsin-Milwaukee, Milwaukee, WI.

Kanter, J. W., Murphy, J. D., Baruch, D. E., Bowe, W., **Puspitasari, A. J.,** & Koerner, K. (2011, May). *Activating Through the Internet: Results of Online Training of Behavioral Activation Techniques*. In J. Kanter (Chair), *Getting Clinical Behavior Analytic Interventions Out to the World-Wide Community: Internet-based Training Methods for Behavioral Activation, Functional Analytic Psychotherapy and Acceptance Commitment Therapy.* Symposium presented at the annual meeting of the Association for Behavior Analysis International, Denver, CO.

Poster Presentations:

Puspitasari, A. J., Busch, A., Kanter, J. W. (2015, March). *Trainer-led vs. self-paced behavioral activation online training*. Poster was presented for the annual meeting of Brown University Mind Brain Research Day, Providence, RI.

Walsh, A., **Puspitasari, A. J.,** Fero, L., Schwenn, A., Gutierrez, H., Kanter, J. W. (2014, November). *Trainer-led vs self-paced online training: Trainees' satisfaction towards to type of behavioral activation online training.* Poster was presented for have the annual meeting of the Association of Behavioral and Cognitive Therapies, Philadelphia, PA.

Puspitasari, A. J., Harper, S. A., Fero, L. J., Versal, M. A., Bowman, N., Guttierez, H., & Kanter, J. W. (2013, April). *What do experts do? A qualitative analysis to improve the measurement of behavioral activation training outcomes*. Poster was presented for the annual convention of the Wisconsin Psychological Association, Madison, WI.

Harper, S. A., Bowman, N. J., Guzman, J. A., **Puspitasari, A. J.**, & Kanter, J. W. (2013, April). *Trainee satisfaction with an online training of behavioral activation treatment for depression.* Poster was presented for the annual convention of the Wisconsin Psychological Association, Madison, WI.

Nagy, G.A., Morales, C., Trejo, V., Harper, S., Fero, L., Verzal, M. A., **Puspitasari, A. J.,** Santos, M., & Kanter, J. W. (2013, April). *The effectiveness of a modular, face-to-face training in Behavioral Activation for community therapists who serve depressed latinos.* Poster will be presented for the annual convention of the Wisconsin Psychological Association, Madison, WI.

Puspitasari, A. J., Czajkowska, K. K., Kanter, J. W. (2012, November). *Weekly Average Daily Steps Change in an Online Behavioral Activation Walking Intervention*. Poster was presented for the annual meeting of the Association of Behavioral and Cognitive Therapies, National Harbor, MD.

Puspitasari, A.J., Crowe, A. S., Murphy, J. D., Kanter, J. W. (2012, November). *Development of a Gold Standard for the Assessment of Behavioral Activation Skills: A Quantitative and Qualitative Analysis.* Poster was presented for the annual meeting of the Association of Behavioral and Cognitive Therapies, National Harbor, MD.

Puspitasari, A. J., Crowe, A. S., Nagy, G. A., Murphy, J. D. Kanter, J. W. (2012, April). *The Development and Outcomes of an Online Behavioral Activation Training – Disseminating an Evidence-Based Treatment for Depression.* Poster was presented for the annual convention of the Wisconsin Psychological Association, Madison, WI.

Puspitasari, A. J., Crowe, A. S., Nagy, G. A., Kanter, J. W. (2012, March). *The Development of a Role-Play Competency Measure to Evaluate Outcomes of a Behavioral Activation Online Training*. Poster was presented for the annual meeting of the National Institute of Health on the Science of Dissemination and Implementation, Bethesda, MD.

Czajkowska, K. K., **Puspitasari, A. J.,** Kanter, J. W. (2012, March). *Users' Satisfaction of an Online Behavioral Activation Walking Intervention.* Poster was presented for the annual meeting of the National Conference on Undergraduate Research, Ogden, UT.

Puspitasari, A. J., Dillon, S. E., Crowe, A. S., Kanter, J. W. (2011, November). *Developing a Role-Play Competency Assessment for the Training of Behavioral Activation Therapists"*. Poster was presented for the annual meeting of the Association of Behavioral and Cognitive Therapies, Toronto, Canada.

Puspitasari. A. J. (2006, May). *Non-formal Education as an Approach to Diminish Risky Behaviors among Street Children in Indonesia*. Poster presented at the annual meeting of Undergraduate Research Symposium at the University of Minnesota-Morris, Morris, MN.

RESEARCH PROJECTS

Dissertation: A Randomized Controlled Trial of an Online, Modular, Active Learning Training Program for Behavioral Activation for Depression

- Role: Student PI
- Committee members: Jonathan Kanter, Ph.D.; Shawn Cahill, Ph.D.; Christopher Martell, Ph.D.; Hanjoo Lee, Ph.D.; Hobart Davis, Ph.D.
- Project: This randomized-controlled trial aims to evaluate the efficacy of a live, trainer-led, online Behavioral Activation training program in comparison to a self-paced online program with matched content. Participants include graduate students from Clinical Psychology, Counseling Psychology, Psychiatry Residency, Social Work, and Nursing programs in the United States.

Master's Thesis: A Randomized Pilot Investigation of an Online Behavioral Activation Walking Intervention

- Role: Student PI
- Committee members: Jonathan Kanter, Ph.D.; Shawn Cahill, Ph.D.; Hanjoo Lee, Ph.D.
- Project: This randomized-controlled trial aimed to evaluate the efficacy of an online Behavioral Activation program to increase walking for sedentary individuals when compared to no-treatment control group. Results indicated that the online Behavioral Activation walking program was efficacious to increase daily steps compared to the control condition.

The Development of Trainer-led and Self-Paced online Training to Disseminate Behavioral Activation Treatment.

- Role: Student PI
- Responsibilities: Coordinate four open trials evaluating the effectiveness of an online Behavioral Activation training for mental health providers. Responsibilities include developing online training materials and programs, developing Behavioral Activation competency measure, participants recruitment and data collection, data analysis and manuscript preparation.
- Supervisor: Jonathan W. Kanter, Ph.D.
- Study Site: Depression Treatment Specialty Clinic, University of Wisconsin – Milwaukee
- Study period: 06/2010-present

The Effectiveness of Functional Analysis Strategies to Enhance Activation.

- Role: Student Therapist
- Responsibilities: Provided 8-session manualized Behavioral Activation intervention for major depression in a community clinic.
- Supervisor: Jonathan W. Kanter, Ph.D.
- Study Site: Depression Treatment Specialty Clinic, University of Wisconsin – Milwaukee
- Study period: 06/2010-01/2013

Wisconsin Smokers Health Studies

- Role: Graduate Research Assistant
- Responsibilities: Responsibilities included: conducting semi-structured clinical interviews for Psychiatric Diagnosis, data collection, quality assurance of data collection.
- Supervisor: Bruce Christiansen, Ph.D.
- Study Site: Center for Tobacco Research and Intervention
- Study period: 05/2008-08/2009

WORKSHOPS AND TRAININGS

Kanter, J. W. & **Puspitasari, A. J.** (2013, June). *Behavioral Activation: Level 1 Training*. Three-day workshop conducted for the Association of Clinical Psychologists (*Ikatan Psikologi Klinis*), Jakarta, Indonesia.

Puspitasari, A.J. & Kanter, J. W. (2012, December). Five-hour online train-the-trainer training for *Using Behavioral Activation to Bridge the Gap Between Inpatient and Outpatient Mental Health Care* project, Uppsala, Sweden.

Kanter, J. W., Dieguez-Hurtado, G., Santos, M. M., Nagy, G. A., **Puspitasari, A. J.** (2012, October). *Maximizing Your Effectiveness in Behavioral Activation for Latinos with Depression*. Three-hour workshop conducted for the National Association of Social Worker Wisconsin Chapter, Brookfield, Wisconsin.

Puspitasari, A. J. (2012, June). *Behavioral Activation.* Two-day workshop conducted for the terminal Master's program in Clinical Psychology at the University of Gajah Mada, Jogjakarta, Indonesia.

Puspitasari, A. J. (2012, June). *Behavioral Activation*. Two-day workshop conducted for the Association of Clinical Psychologists (*Ikatan Psikologi Klinis*), Jakarta, Indonesia.

Puspitasari, A.J. & Broskowski, J. (2011, July). *Campus Connect Suicide Prevention Gatekeeper Training*. Three-hour workshop conducted for academic advisors at University of Wisconsin-Milwaukee, Milwaukee, Wisconsin.

Puspitasari, A. J. & Leahy, R. (2011, April). *Campus Connect Suicide Prevention Gatekeeper Training*. Three-hour workshop conducted for School of Information Studies at University of Wisconsin-Milwaukee, Milwaukee, Wisconsin.

CLINICAL EXPERIENCE

Fifth-Year Clinical Student Supervisor **08/2013-05/2014**

University of Wisconsin – Milwaukee

- Supervise two third-year student therapists in providing outpatient psychotherapy for clients with major depression as the primary presenting problems. Responsibilities include attending group supervision led by a licensed psychologist; providing individual supervision for third-year student therapists on implementing Behavioral Activation treatment for depression; observing both live and recorded therapy sessions; leading a few sessions of group supervision and providing didactic on Behavioral Activation treatment for first, second, and third year graduate students.

Supervisor: Christopher Martell, Ph.D.

Health Psychology Practicum Student **07/2012-05/2013**

Medical College of Wisconsin/Froedert Hospital, Wauwatosa, WI

- Training in clinical health psychology/behavioral medicine. Responsibilities included providing psychological services such as psychological evaluations, intake assessments, and individual therapy to medical inpatients and outpatients in several surgical departments. Gained experience with clinical documentation using an electronic medical records system (EPIC Systems).
- Department of Trauma and Critical Care Surgery
    - Responsibilities included consultation/liaison with members of the medical trauma team and providing psychoeducation and individual therapy to inpatients in a Level I trauma center. Other responsibilities included administering cognitive screens and behavioral medicine focused assessments to trauma patients.
    - Presenting concerns included adjustment reactions and Acute Stress Disorder for patients whom suffered traumatic events such as motor vehicle crashes, pedestrian versus auto collisions, gunshot wounds, stab wounds, falls, occupational accidents, and other accidents.

  - Intervention included cognitive behavioral therapy and supportive therapy.
- Department of Transplant Surgery
  - Responsibilities included providing individual therapy to adult outpatients awaiting or adjusting to liver, kidney, pancreas, or lung transplants; conducting psychological evaluations for potential liver, kidney, and pancreas transplant candidates; conducting psychological evaluations for living kidney donors; providing individual therapy to adult inpatients who are hospitalized while awaiting transplant or who are hospitalized following their transplant, and consultation with the transplant medical team. Other responsibilities included administering diagnostic and behavioral medicine focused assessments to potential transplant candidates and living donors, providing follow-up on assessment results and the treatment plan for transplant candidacy, and report writing.
  - Interventions included cognitive behavioral therapy, Behavioral Activation for Depression, Acceptance and Commitment Therapy, and Supportive therapy.
  - Administered, scored, and interpreted measures such as the Brief Symptom Inventory, Millon Behavioral Medicine Diagnostic, Alcohol Use Disorders Identification Test (AUDIT), St. Louis University Mental Status (SLUMS) Examination.
- Department of General Surgery, and Plastic and Reconstructive Surgery
  - Responsibilities included providing individual therapy to adult clients, conducting psychological evaluations and health behavior interventions for potential bariatric surgery candidates, conducting health behavior interventions for patients, and collaboration with the outpatient medical teams. Other responsibilities included report writing.
  - Presenting concerns included depressive disorders, adjustment disorders, chronic pain, non-epileptic seizures.
  - Interventions included Behavioral Activation for Depression, Acceptance and Commitment Therapy for chronic pain, and cognitive behavioral therapy.

Supervisors: Terri deRoon-Cassini, Ph.D., Rebecca C. Anderson, Ph.D., and Mark Rusch, Ph.D.

Assistant to the Clinic Director **08/2012-05/2013**

Psychology Clinic, University of Wisconsin - Milwaukee

- Conduct semi-structured screening interviews of prospective clients for the clinic, which serves the university and the community. Monitor and structure psychology clinic client flow. Assign new clients to clinical trainees (third year Ph.D. students), and orient these trainees to the psychology clinic and assist them with clinic and APA protocols and procedures.

Clinic Director and supervisor: Jonathan W. Kanter, Ph.D.

Student Therapist **06/2011-05/2012**

Practicum in Therapy, Psychology Clinic, University of Wisconsin – Milwaukee

- Training in adult outpatient therapy. Responsibilities included providing individual therapy to adult and adolescent clients. Presenting concerns included mood disorders, anxiety disorders, eating disorders, couple distress. Interventions included: Behavioral Activation, Functional Analytic Psychotherapy, Acceptance and Commitment Therapy, Cognitive Behavior Therapy for eating disorder.

Supervisors: Jonathan W. Kanter, Ph.D.; Gwynne O. Kohl, Ph.D.

Practicum in Projective Assessment 01/2011-06/2011

Psychology Clinic, University of Wisconsin-Milwaukee

- Training in the administration of child assessment instruments and projective instruments, clinical interviews, assessment scoring, integrative report writing, and classroom observation: emphasis on cultural and ethnic diversity. Instruments included: Behavioral Assessment System for Children – Second Edition (BASC-2), Cognitive Assessment System, WISC-IV, and WIAT-II.
- Administered, scored, and interpreted psychoeducational assessments with children as a consultant to an Individualized Education Plan team at a local school.

Supervisor: Bonita Klein-Tasman, Ph.D.

Practicum in Objective Assessment 08/2010-12/2010

Psychology Clinic, University of Wisconsin-Milwaukee

- Received training in administration of psychological and neuropsychological assessment instruments, clinical interviewing, scoring, and report writing. Instruments included: Structured Clinical Interview for the DSM-IV, I and II, Hamilton Rating Scale for Depression, California Verbal Learning Test – 2nd Edition, MMPI-II, Stroop, WAIS-III, WIAT-II, WJ-III, Test of Word Reading Efficiency (TOWRE), Test of Irregular Word Reading Efficiency (TIWRE), Rapid Automatized Naming/Rapid Alternating Stimulus Test (RAN/RAS), Conners' Continuous Performance Test II (CPT-II), Brief Test of Attention, d2 Test of Attention, Delis-Kaplan Executive Function System (DKEFS), Conners' Adult ADHD Rating Scales (CAARS) Self-Report: Long Version, Achievement Motivation Profile, Learning Styles Inventory, Student Adaptation to College Questionnaire, Career Decisions Scale, Career Thoughts Inventory, and measures to assess malingering (b-test, Dot Counting Test, Word Memory Test, Word Reading Test).

Supervisors: HanJoo Lee, Ph.D. and Bonita Klein-Tasman, Ph.D.

Practicum in Empirically Supported Interventions 08/2009-05/2010

Psychology Clinic, University of Wisconsin-Milwaukee

- Practicum as an adjunct to an Empirically Supported Interventions course. Received training in empirically supported treatments for DSM-IV diagnoses.

Supervisor: Shawn P. Cahill, Ph.D.

First Year Clinical Practicum Student **08/2009-05-2010**

Psychology Clinic, University of Wisconsin-Milwaukee

- Training in clinical interviewing, scoring, and report writing. Instruments included: Structured Clinical Interview for the DSM-IV-TR, Part I and II, Stroop, Neuropsychology Assessment Battery (NAB), NEO-PI-R, Personality Assessment Inventory (PAI), WAIS-III, Woodcock-Johnson Tests of Cognitive and Achievement Abilities 3rd Edition (WJ-III).

Supervisors: Elizabeth Anderson, M.S. and David Osmon, Ph.D., ABPP/ABCN

SPECIALIZED CLINICAL TRAINING

Service Members and Veterans on Campus: A University Counseling Center and Core Competency Program **03/18/2013**

- 8-hour training workshop on providing deployment related behavioral health services to military personnel and their families, which include an introduction to Prolonged Exposure and Cognitive Processing Therapy.

Conducted by: Jenna Ermold, Ph.D.

Epic: Provider Orientation **07/01-19/2012**

- 4-hour online training and 5-hour in-class training on using the EpicCare Ambulatory Electronic Medical Record, which include the general introduction to the software system, ethical guidelines, and documenting inpatient medical records.

Acceptance and Commitment Therapy Workshop **03/30/2012**

Annual Convention for the Association for Contextual Behavioral Science

- 8-hour training workshop on implementation of Acceptance and Commitment Therapy.

Conducted by: Patty Bach, Ph.D.

A Suicide Prevention Training for Gatekeepers Trainers **09/2010**

- 8-hour training workshop to be a trainer for a suicide prevention program delivered to faculty, staff, and student leaders of the University of Wisconsin – Milwaukee.

TEACHING EXPERIENCE

Teaching Assistant **09/2007-05/2012**

University of Wisconsin – Milwaukee

Courses: Psychology 101 – Introduction to Psychology (4 semesters)

Psychology 230 – Introduction to Social Psychology (3 semesters)

Psychology 677 – Experimental Social Psychology (1 semester)

UNIVERSITY AND PROFESSIONAL SERVICE

2012 – 2014	**Graduate Student Representative** Diversity Committee to enhance recruitment and retention of graduate students and faculty in Psychology, University of Wisconsin-Milwaukee
2014-	**Member** Diversity Committee, Alpert Medical School of Brown University

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PROFESSIONAL MEMBERSHIPS

2007 - Present	American Psychological Association, Student Member
2009 - Present	Association of Behavioral and Cognitive Therapies, Student Member
2010 - Present	Wisconsin Psychological Association, Student Member
2010 - Present	Milwaukee Area Psychological Association, Student Member
2014 - Present	Association for Contextual Behavioral Science, Student Member
2013 - Present	Society for Psychotherapy Research, Student Member
2012 – Present	Midwestern Psychological Association, Student Member

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REFERENCES

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