Improving Homework Compliance in Career Counseling With a Behavioral Activation Functional Assessment Procedure: A Pilot Study

David E. Baruch, Jonathan W. Kanter, William M. Bowe, and Sherri L. Pfennig
University of Wisconsin–Milwaukee

Behavioral activation has emerged as a widely used treatment for depression in a number of health care settings due to its concrete, straightforward emphasis on out-of-session client homework, but it lacks explicit guidelines for identifying and overcoming barriers that interfere with homework completion. The purpose of this pilot study was to assess the feasibility and acceptability of the Homework Assignment Performance–Enhancement protocol (HAP-E) to augment homework completion in 8 participants (4 students and 4 alumni) receiving ongoing career counseling. The HAP-E is a single-session protocol comprised of a brief functional assessment (FA) of homework noncompliance that guides clinicians to implement behavioral techniques tailored to address client-specified barriers to homework completion. Seven out of 8 participants returned for a 1-week follow-up interview and these participants reported that the HAP-E was helpful. Initial feasibility of the HAP-E was supported by a 70% average homework completion rate when assessed at a 1-week-follow-up. Likewise, each barrier assessed by the FA was endorsed at least once by the sample and 88% endorsed more than one barrier, suggesting that each of the four functional categories used in the FA was relevant in the career counseling context. These initial findings point to the potential utility of HAP-E procedures as simple, straightforward strategies for targeting homework noncompliance in counseling modalities. A description of HAP-E and its theoretical rationale will be provided together with case illustrations on the implementation of HAP-E in a college career-counseling context.

BEHAVIORAL activation (BA) presents concrete, easy-to-implement techniques for the treatment of depression that have been found to be effective across multiple studies and research groups (Cuijpers, van Straten, & Warmerdam, 2007; Ekers, Richards, & Gilbody, 2008; Mazzucchelli, Kane, & Rees, 2009), leading Mazzucchelli et al. to conclude that BA should be designated a "well-established empirically validated treatment" according to the standards of the American Psychological Association's Division 12 Task Force on Promotion and Dissemination of Psychological Procedures (Chambless et al., 1998; Task Force on Promotion and Dissemination of Psychological Procedures, 1995). Due to its straightforward and easy-to-implement techniques, BA has been field tested in community health care centers (Kanter, Santiago-Rivera, Rusch, Busch, & West, 2010), inpatient (Hopko, Lejuez, LePage, Hopko, & McNeil, 2003), inner-city drug rehabilitation (Daughters et al., 2008), group format (Chu, Colognori, Weissman, & Bannon, 2009; Porter, Spates, & Smitham, 2004), outpatient (Dimidjian et al., 2006), and college counseling (Gawrysiak, Nicholas, & Hopko, 2009) contexts.

Recent BA manuals garnering the most empirical study include Martell, Addis, and Jacobson (2001) and Lejuez, Hopko, and Hopko (2001), and the principles underlying these two interventions have been outlined elsewhere (Hopko, Lejuez, Ruggiero, & Eifert, 2003). One similarity across all BA approaches is the primary significance attached to out-of-session homework assignments. This emphasis is in accord with the well-established finding that homework noncompliance highly correlates with poorer depression treatment outcomes (Bryant, Simons, & Thase, 1999; Burns & Spangler, 2000; Fennell & Teasdale, 1987; Kazantzis, Deane, & Ronan, 2000; Kazantzis, Deane, & Ronan, 2004; Startup & Edmonds, 1994), even when controlling for pretreatment depression severity (Burns & Nolen-Hoeksema, 1991). Likewise, several controlled experimental studies have found a specific effect of homework completion on client outcomes (Harmon, Nelson, & Hayes, 1980; Neimeyer & Feixas, 1990; Neimeyer, Twentyman, & Prezant, 1985).

Despite the heavy emphasis BA places on homework completion, it has lacked explicit guidelines needed for identifying and overcoming barriers that interfere with homework completion. Recently, Kanter, Busch, and Rusch (2009) developed a brief functional assessment (FA) procedure to identify and overcome barriers to homework completion in BA. This FA was designed to be

useful for therapists utilizing *either* BA manual (i.e., Martell et al., 2001, *or* Lejuez et al., 2001) by addressing a variety of core BA techniques such as activity monitoring, activity scheduling, skills training, contingency management, and procedures targeting avoidance (Kanter, Manos, Bowe, Baruch, Busch, & Rusch, 2010). Conceptualizing compliance as an operant behavior, barriers to homework compliance were defined in terms of the traditional behavioral ABC model in which "A" represents the environmental antecedents of the behavior (discriminative stimuli that evoke the behavior of interest), "B" represents the behavior itself, and "C" represents the environmental consequences (reinforcing or punishing stimuli that increase or decrease the frequency of the behavior, respectively). With barriers organized according to an ABC model, BA interventions identified as targeting each domain are then employed as appropriate (see Methods section for detailed description of linked interventions).

The current study adapted the FA procedure for BA homework compliance for a university career development setting. Career development is particularly relevant as a setting to apply this procedure for several reasons. First, the directive and problem-solving approaches to exploring career opportunities that characterize these settings produce regular homework assignments and in this sense are similar to BA approaches (Brown et al., 2003; Carson & Dawis, 2000; Whiston, 2000). Second, like BA, homework follow-through is a major barrier to treatment effectiveness in these settings (Worthington, 1986). Third, university student mental health and its impact on school performance has been a growing concern for university counselors (Benton, Robertson, Tseng, Newton, & Benton, 2003; Kitzrow, 2003; Sax, Bryant, & Gilmartin, 2004; Soet & Sevig, 2006), leading to recommendations that university counselors receive training in empirically supported treatments (Stone, Vespia, & Kanz, 2000). Mental health difficulties related to unemployment are particularly salient in these times of financial stress and high unemployment (Leahy, 2009), and career development counselors face a particular challenge with returning alumni as unemployment and related stressors are closely associated with poor mental health, including depression (Lerner et al., 2004; McKee-Ryan, Song, Wanberg, & Kinicki, 2005).

The current study represents an initial pilot study of the FA intervention in a career development university context. In order to illustrate how these techniques could be disseminated to a diverse counseling context, the sample included university students and returning alumni seeking career development counseling services. Recently, Weisz (2004) proposed a new empirical model of treatment development, the Deployment Focused Model of Treatment Development (DFM). DFM emphasizes the ultimate goal of dissemination by recommending that treatment development reflect community counseling realities. For example, due to the growing demands for mental health services, universities have emphasized time-limited interventions and have instituted strict policies to limit the number of therapy sessions (Kitzrow, 2003; Mowbray et al., 2006; Stone et al., 2000), with most university students attending only one session (Draper, Jennings, Baron, Erdur, & Shankar, 2002). Consistent with these concerns, the FA procedures were adapted to be implemented in a single session, consistent with previous work demonstrating that behavioral techniques are effective when applied at a university counseling context in a single session (Gawrysiak et al., 2009).

The resulting intervention was called the Homework Assignment Performance–Enhancement protocol (HAP-E), which consisted of an FA of homework noncompliance and BA-linked interventions as per Kanter et al. (2009). The following pilot study consisting of 8 clients (4 students and 4 alumni) attending a university career development center explores the feasibility and acceptability of implementing the HAP-E intervention to enhance homework compliance in this context. The first aim of this study was to collect feasibility data on the FA and BA-linked interventions. Feasibility of the FA was assessed via a simple frequency count of barriers identified by the FA and client feedback on whether the FA identified their primary barrier to homework completion. Preliminary feasibility findings on the specific BA interventions linked to the FA included compliance ratings on three homework assignments, assessing generalization of strategies to nonassigned tasks, and client feedback on whether the intervention provided novel strategies. The second aim of the study was to explore the acceptability of the HAP-E procedures. This included client feedback on the helpfulness of the FA and associated interventions. Results will be presented for all 8 participants, followed by a detailed description of 3 case examples, including 2 successes and 1 failure.

Method

HAP-E

The HAP-E was a modification of the procedures of Kanter et al. (2009) to supplement current practices employed by the University of Wisconsin–Milwaukee (UWM) Career Development Center (CDC) with clients seeking career development services. The HAP-E comprises an FA of homework noncompliance that guides counselors toward specific, linked behavioral interventions (Baruch, Pfennig, & Kanter, 2009). The FA was guided by the traditional ABC model and conceptualized barriers according to the following functional categories: stimulus control deficits, behavioral skills deficits, and environmental consequences (public and private).

Stimulus control deficit barriers reflected whether the client's environment effectively evoked homework completion (e.g., Did you remember to do the assignment?). *Behavioral skill deficit* barriers reflected problems related to skills deficits (e.g., Did you know how to do the assignment?). Barriers related to *environmental consequences* were divided into public or private consequences. *Public environmental consequences* reflected observable, external disruptions or distractions. Examples may be social (e.g., partner of depressed client takes over household responsibilities, thereby reinforcing staying in bed) or nonsocial (e.g., excessively watching television). *Private environmental consequences* reflected the avoidance of unobservable, internal experiences such as aversive thoughts and feelings (e.g., feelings of inadequacy associated with social activities or avoidance of self-critical thoughts associated with learning a new skill or hobby). The frequency in which each functional category was endorsed was collected and averaged for analysis.

Each functional class was linked to a specific behavioral intervention. *Stimulus control interventions* (i.e., when *stimulus control deficits* are endorsed) involved selecting one or more "reminder strategies" from a list of stimulus control interventions. Examples include visual or auditory cues (e.g., Post-it notes, voice-message to self), organizing techniques (e.g., scheduling, to-do lists), or time/place association prompts (e.g., placing job application on top of TV remote).

When behavioral skill deficits were identified, skills training interventions relevant to the skill deficit were initiated. Based on feedback from CDC administration, instead of targeting specific career/employment skills (e.g., resume building, job interviewing, etc.), this intervention was designed to identify and implement effective learning strategies to gain skills independently. To this end, clients identified learning skills to target, which included nonsocial learning skills (e.g., independent researching skills such as conducting an online literature review), social learning skills (e.g., interpersonal skills involved in consulting counselors, friends/family, professors), and experiential learning skills (e.g., gaining experience by seeking internships, role-playing, or shadowing). Thereafter, clients chose from a list of learning strategies to facilitate successful implementation of the learning skill (e.g., dedicating sufficient time, defining learning goals, summarizing information).

Barriers related to public environmental consequences were addressed with contingency management techniques, consistent with those in BA by Lejuez et al. (2001). Contracting was implemented to minimize competing sources of reinforcement and/or increasing the reinforcement value of homework completion. Contracting (with oneself or with a supportive friend/family member) involved identifying three distractions to avoid, three tasks to complete, and three consequences (reinforcers or punishers) contingent on assignment completion. Reinforcers included specified rewards and enjoyable activities and punishers were limited to mild negative consequences (e.g., "I'm giving my friend permission not to see the movie premiere with me unless I fulfill my contract").

Barriers related to private environmental consequences were addressed with *mindful valued activation* interventions. These interventions, consistent with those in BA by Martell et al. (2001), consisted of three parts: (a) recognizing avoidance patterns, (b) identifying values, and (c) activating in the presence of difficult emotions that have been habitually escaped from or avoided. First, clients were given psychoeducation on how homework noncompliance functioned to avoid difficult internal events and how avoidance patterns are maintained by processes of negative reinforcement. Second, *values* related to homework assignments were discussed as a means to motivate activation, by making meaningful yet distal reinforcing events more salient in the present (e.g., filling out an application in line with the value of being able to support one's family; Hayes, Strosahl, & Wilson, 1999). Third, clients were instructed to practice persevering in difficult situations (i.e., those that create negative thoughts or feelings) while being fully aware, but nonjudgmental, of accompanying aversive states (Dimidjian & Linehan, 2003; Hayes et al., 1999; Linehan, 1993). Examples of mindful valued activation are described in more detail in two of the cases presented below.

The HAP-E was implemented in a single session for each participant. The FA was implemented with respect to uncompleted tasks and goals originally discussed with the client's CDC counselor. The behavioral intervention linked to the barrier identified as being a primary concern was then implemented. Following this intervention, three specific homework assignments related to the participant's career development goals were collaboratively determined (i.e., an action plan for the upcoming week). The action plan also included instruction for participants to rate the expected difficulty level of each assignment on a scale from 1 to 10.

Participant and Treatment Setting

The study was conducted at the CDC at UWM and included 8 participants, ages 23 to 60, with a mean age of 32.38 (*SD*=12.91). Participants consisted of 4 alumni and 4 current students (2 undergraduates, 1 graduate student, and 1 student working on a second degree). Seven out of 8 participants attended both sessions. Consequently, all 8 participants received the FA and linked intervention but the sample size for the acceptability findings and feasibility related to the intervention (i.e., homework compliance ratings) were reduced by one. The mean Patient Health Questionnaire–9 (Spitzer, Kroenke, &

Table 1
Demographic information for each participant

#	Age	Gender	Ethnicity	Standing	GPA	PHQ-9
1	24	Female	European American	Second Degree	-	18.00
2	27	Female	European American	Graduate Student	3.90	8.00
3	23	Male	European American	Senior	3.33	14.00
4	24	Female	European American	Senior	2.50	4.00
5	60	Male	European American	Alumnus	3.60	15.00
6	24	Female	European American	Alumnus	3.40	7.00
7	38	Female	European American	Alumnus	2.25	11.00
8	39	Female	European American	Alumnus	-	10.00
	M (SD)	*% Female*	*%*	*% Alumnus*	*M (SD)*	*M (SD)*
	32.38 (12.91)	75.00%	100% European American	50.00%	3.16 (0.65)	10.88 (4.61)

Williams, 1999) score prior to the first session was 10.88 (*SD*=4.61), indicating clinically significant levels of depression symptoms. See Table 1 for additional demographic information.

Alumni and students seek services at the CDC for help on a range of career development goals, including: (a) exploring academic majors/career options, (b) identifying job search goals and plans, (c) identifying useful campus and community resources, (d) creating a resume and honing interview skills, and (e) developing client capacity to cope with aspects of each goal listed above. Individual career counseling at the CDC includes an assessment of career preferences, personality, skills, and aptitudes and the collaborative assignment of activities designed to help clients cope, explore, evaluate, and move closer to their career or employment goals. Consistent with Weisz (2004), and in order to evaluate the HAP-E in the setting in which the protocol is intended, the current study kept exclusion criteria to a minimum to include participants normally seeking counseling services at the CDC. Consequently, inclusion criteria included being: (a) a student or alumni seeking services at the CDC, (b) between 18 and 65 years of age, and (c) cognitively capable of providing informed consent.

Procedures

Participants were referred by CDC counselors to participate in a research study to supplement work with the individual counselor and thus the HAP-E was scheduled to occur between individual career counseling sessions. The HAP-E was administered in a single session, by the first author, and all sessions were conducted at the CDC. Each session concluded with the development of an action plan. A feedback interview occurred 1 week later, which assessed feasibility (e.g., homework compliance rates) and acceptability (e.g., helpfulness ratings) of the HAP-E procedures.

Assessment Measures

Demographic Questionnaire

The demographic questionnaire included items that assessed general demographic questions (e.g., age, gender) and college-specific questions (e.g., GPA).

Patient Health Questionnaire–9 (PHQ-9; Spitzer et al., 1999)

The PHQ-9 is a 9-item measure that assesses the symptoms of major depression as defined by the *DSM–IV–TR* (APA, 2000). The PHQ-9 assesses the presence of each symptom in the past 2 weeks and uses a 4-point Likert scale ranging from 0 (*not at all*) to 3 (*nearly everyday*) to produce a total score between 0 and 27, with higher scores reflecting greater depressive symptoms. The PHQ-9 has demonstrated good internal consistency (α=.89) and test-retest reliability (r=.84; Kroenke, Spitzer, & Williams, 2001). Scores of 10 or higher reflect clinically significant depressive symptoms (Kroenke et al., 2001).

Action Plan Evaluation (APE)

The APE included questions to assess the feasibility and acceptability of the HAP-E. Feasibility of the FA-linked BA interventions was assessed by asking participants to rate their level of homework compliance on a scale of 1 to 10 for each action plan (Completion–Action Plan; "On a scale of 1 to 10, how much of Action Plan #1 did you complete?"). Generalization of gains (i.e., task completion) was assessed by asking participants, "Did you complete any other activities related to your goals (i.e., that were not assigned)?" Finally, to assess how confident participants were that they could have utilized the intervention strategies without being given the intervention, participants were asked, "On a scale of 1 to 10, how likely would you have come up with this strategy and utilized it on your own?" Feasibility for the FA was assessed by asking participants whether the FA identified their primary barrier to homework noncompliance ("On a
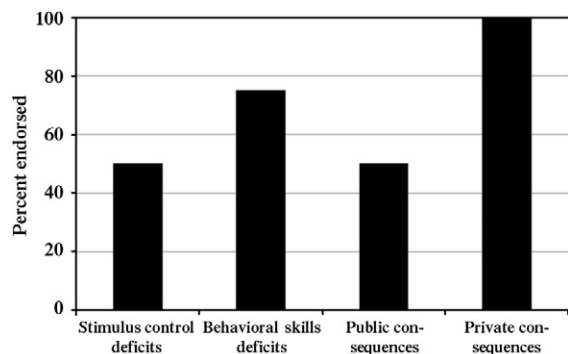
Figure 1. The average percent distribution of endorsed functional categories by 8 participants.

the intervention was assessed by asking participants to rate the helpfulness of each action plan on a scale of 1 to 10 (Helpfulness–Action Plan; "On a scale of 1 to 10, how helpful was Action Plan #2?") and for the FA by asking participants, "On a scale of 1 to 10, how helpful was it to hear the questions?" Finally, participants were given the opportunity to provide general feedback on any component of the HAP-E ("Was there anything that you did not like or thought was really helpful about the assessment, action strategies, or assignment that we have not touched on?").

Results

Feasibility Findings

scale of 1 to 10, how much do you believe that we identified the most relevant barrier getting in the way of career/employment seeking tasks?"). Acceptability for

Figure 1 illustrates the distribution of endorsed barriers interfering with career goals averaged across the sample, and Table 2 displays barrier endorsements for

Table 2
Participant feedback on the assessment and intervention components of the HAP-E

#	Barriers Endorsed	Intervention	Assessment Feedback	Intervention Feedback
1	Stimulus control Public EC *Private EC*	Mindful valued activation	"I was worried early on by the focus on procrastination but I was happy when you began asking about negative thinking" "We didn't have enough time to do a full assessment"	"Helpful for life in general" "I wasn't aware I was doing these things let alone making it worse" "Helped me bring balance to my life" "Helped me be courageous, to do the hard things"
2	Public EC *Private EC*	Mindful valued activation	"It [problems feeling bad] is *the* issue"	"Discussing my values helped put things in perspective – why I'm doing it"
3	Stimulus control Behavioral skills *Private EC*	Mindful valued activation	"It identified that I needed to tell people how I felt" "Didn't help me tell me where to go next" "Never thought about these things"	"Helpful to have a goal in mind" "I know that I do better with plans" "Gave me a sense of hope" "Learned that things that don't work can still be a good experience"
4	*Behavioral skills* Public EC Private EC	Skills training	N/A	N/A
5	*Private EC*	Mindful valued activation	"You didn't identify it. I already knew" "The problem is that UWM doesn't help its alumni" "Questions were kindergarten questions"	"Nothing new" "I am 60 years old, not some 20-year-old. I've already done all of this" "Your strategies were naive"
6	Behavioral skills *Private EC*	Mindful valued activation	"Helpful, but I'm more complex"	"Helped to have a concrete plan" "Able to be persistent even when ambivalent" "Felt encouraged"
7	Stimulus control *Behavioral skills* Private EC	Skills training	"Made me think whether I've done that or not"	"Helpful to have a target" "Gave me more knowledge and awareness" "Practicing was a good dry run"
8	Stimulus control Behavioral skills Public EC *Private EC*	Mindful valued activation	"The questions got me thinking…good to talk about these things."	"Learned that I can make time even if have barriers" "Normally don't plan like that…helped me hold self accountable"

Note. Stimulus control = Stimulus control deficits; Behavioral skills = Behavioral skills deficits; Public EC = Public environmental consequences; Private EC = Private environmental consequences. Italicized items in the "Barriers Endorsed" column refer to the primary barrier.

each participant separately. Seven out of 8 (87.50%) endorsed more than one barrier and 5 out of 9 (62.50%) endorsed three. When considering each separately, all 8 participants endorsed private environmental consequences as a barrier, with 6 (75.00%) identifying it as their primary barrier. Six participants (75.00%) endorsed behavioral skills deficits as a barrier to their career search, and 2 (25.00%) identified it as their primary barrier. Five participants (62.50%) endorsed stimulus control deficits and 5 participants (62.50%) endorsed public environmental consequences as barriers. Overall, participants positively reported that the assessment successfully identified the most relevant barrier interfering with their career goals ($M=8.86$, $SD=1.07$).

Table 3 presents homework compliance ratings for each action plan (Completion–Action Plan) for each participant. Averaging across all three action plans (Completion–Action Plan Total), participants reported completing a mean score of 7.10 ($SD=2.83$), indicating that participants completed most of their assigned action plans. Regarding the linked BA interventions, participants rated it unlikely ($M=4.29$, $SD=3.35$) that they would have discovered and implemented the strategies discussed in the HAP-E interventions on their own. Finally, as a proxy to assessing generalization, participants were asked whether they had worked on additional career-related tasks during the week, and 5 out of 7 (71%) reported doing at least one additional task beyond the three assigned action plans during the week.

Acceptability Findings

Table 3 displays individual and average helpfulness ratings with regards to the HAP-E interventions

(Helpfulness–Action Plans). Overall, participants rated both the FA ($M=7.14$, $SD=3.72$) and interventions ($M=7.19$, $SD=3.82$) as helpful. The feedback interview provided the opportunity to elaborate on these ratings and selections of this feedback can be found in Table 2.

Case Examples

To illustrate the HAP-E intervention in more detail, three cases are presented. Angela was a successful case using the mindful valued activation intervention, Robyn was an unsuccessful case using the mindful valued activation intervention, and Katherine was a successful case using the skills training intervention. While only the primary barriers to homework completion will be discussed in these illustrations, all barriers endorsed are listed in Table 2. Names and other identifying information have been changed to protect confidentiality.

Angela

Angela was a 25-year-old European-American female student seeking help to obtain employment related to her field of study. She scored an 18 on her PHQ-9, indicating clinically significant levels of depressive symptoms. The target for the HAP-E FA was an upcoming informational meeting. The FA revealed that her primary barrier was with private environmental consequences, in that she felt extremely overwhelmed during interviews to the point that she could not express herself. In those moments she described feeling beaten, paralytic, and overcome by difficult memories of past failures.

Angela readily recognized her avoidance of difficult thoughts, later mentioning during the feedback interview that she had never considered how her own reactions may be contributing to her difficulties. Likewise, she strongly

Table 3
Descriptive data for self-reported acceptability scores of the HAP-E

#	Helpfulness – Action Plan 1	Helpfulness – Action Plan 2	Helpfulness – Action Plan 3	Helpfulness – Action Plan Total	Completion – Action Plan 1	Completion – Action Plan 2	Completion – Action Plan 3	Completion – Action Plan Total
1	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
2	5.00	1.00	1.00	2.33	1.00	1.00	3.00	1.67
3	10.00	10.00	7.00	9.00	10.00	10.00	5.00	8.33
4	-	-	-	-	-	-	-	-
5	1.00	1.00	1.00	1.00	10.00	4.00	1.00	5.00
6	10.00	10.00	10.00	10.00	6.00	7.00	10.00	7.67
7	8.00	10.00	10.00	9.33	9.00	8.00	9.00	8.67
8	8.00	9.00	9.00	8.67	10.00	9.00	6.00	8.33
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)
	7.42 (3.36)	7.29 (4.31)	6.86 (4.14)	7.19 (3.82)	8.00 (3.42)	7.00 (3.37)	6.29 (3.55)	7.10 (2.83)

Note. Helpfulness-Action Plan 1-3= "On a scale of 1-10, how helpful was Activity Plan X; Helpfulness-Action Plan Total= average of all three Helpfulness scores; Completion-Action Plan 1-3= "On a scale of 1-10, how much of Activity Plan X did you complete?"; Completion-Action Plan Total= average of all three Completion-Action Plan score.

connected with the idea that disrupting her avoidance would help her pursue a value of bringing "harmony" to her life and, given that Angela was highly artistic, she developed a visual image of harmony (floating on water) to recall during the interview. Mindful valued activation was introduced with the "Fireman" metaphor, which describes a fireman who experiences fear and anxiety when entering a burning building and then overcomes them by recognizing that both feelings are natural by-products of pursuing his values (i.e., being a life-saving professional). Angela reported feeling empowered to "be courageous" and "do the hard thing." She identified three action plans:

1. Before the interview, list negative thoughts that I can expect will disrupt the interview. (Expected difficulty level was rated 7.)
2. Clarify what "harmony" means to me and how harmony would add to my life. (Expected difficulty level was rated 9.)
3. During the interview, notice my negative thoughts, recall a visual imagery of harmony, and pursue it by staying focused on expressing myself in the interview. (Expected difficulty level was rated 8.)

Angela reported completing all her assignments. She completed 10 out of 10 of Action Plan 1, sharing during the feedback interview that it helped to identify her negative thinking patterns. She rated the helpfulness of this assignment as 10 out of 10 because "I wasn't aware I was doing these things, let alone making it worse." Likewise, she reported completing 10 out of 10 of Action Plan 2, rating it as 10 out of 10 in its helpfulness because "it helped give me balance." Finally, she reported completing 10 out of 10 of Action Plan 3, rating it as 10 out of 10 in its helpfulness. Specifically, she shared that in the moment she told herself to "be courageous," she was surprised and pleased with her ability to engage in the conversation and articulate herself, despite several moments of extreme self-doubt. Angela stated that she planned to implement being "courageous" in several other areas of her life (i.e., dating, asserting herself with roommates).

Robyn

Robyn was a 29-year-old European-American female graduate student in the Architecture program who reported feeling "overextended" by working full time while attending school full time. She scored an 8 on the PHQ-9, denoting subclinical depressive symptoms. The target for the HAP-E functional assessment was her goal to work on a time-consuming graduate school intern project. Robyn readily endorsed private environmental consequences as her primary barrier, stating that avoiding and procrastinating "is *the* issue." She stated that she would

procrastinate until the last moment to avoid a variety of difficult feelings such as being overwhelmed, exhausted, unmotivated, and fears of failure.

Robyn reported that due to her full-time work and school schedule, the only time she could work on her intern project was when feeling exhausted, which was difficult for her to do. As Robyn was very aware of her avoidance patterns, the mindful valued activation intervention emphasized identifying values to reinforce persistence (i.e., activation) in the presence of exhaustion. She reported that discussing her values "helped put things in perspective—why I'm doing it." In particular, she connected with the value of pursuing a psychologically healthy lifestyle as she believed strongly that her intern project was not the only part of her life disrupted by emotional avoidance. Mindful activation was again introduced with the Fireman metaphor and Robyn readily provided models from her life that she admired for being able to overcome family-life obstacles to pursue professional goals. She identified three action plans:

1. Work on the project this Tuesday and when feeling tired or overwhelmed (a) consider why it is important and (b) persist on the project for at least 5 minutes. (Expected difficulty level was rated 3.)
2. Work on the project this Thursday and when feeling tired or overwhelmed (a) consider why it is important and (b) persist on the project for at least 5 minutes. (Expected difficulty level was rated 8.)
3. Work on take-home exam this Sunday. When I get tired or overwhelmed I'm going to (a) consider why it is important and (b) persist for at least 5 minutes. (Expected difficulty level was rated 5.)

Robyn reported difficulty following through with her assignments due to being distracted by others. She completed none of Action Plan 1 because her major professor asked her to complete a different task the professor required the next day. Nevertheless, she rated the helpfulness of the action plan as 5 out of 10, stating that it was helpful to have a concrete plan. Likewise, she did not complete Action Plan 2 as her boyfriend arrived early to pick her up from school. She rated the helpfulness of Action Plan 2 as 1 out of 10. Robyn only completed 3 out of 10 of Action Plan 3 due to battling flu symptoms and thereafter being "tied up" with family. She rated the helpfulness of Action Plan 3 as 1 out of 10. During the feedback interview, Robyn shared that she planned to continue to try to utilize mindful valued activation skills, but reported being unable to implement the skills "in the moment."

Katherine

Katherine was a 38-year-old European-American female seeking job-search assistance. She had graduated 2

years earlier and was currently employed but wished to either negotiate a promotion or obtain employment elsewhere that included greater chance of advancement. Katherine had been struggling with a degenerative neurological disorder for over a decade and scored an 11 on the PHQ-9, suggesting clinically significant depressive symptoms (though it is important to note that many symptoms related to her neurological disorder overlapped with items assessed by the PHQ-9). The target for the HAP-E functional assessment was Katherine's job search and the FA determined that behavioral skill deficits were her primary barrier—specifically, her inability to assert herself at work.

The skills training intervention focused on having Katherine become more interpersonally assertive. In particular, she identified wanting to be able to explain and defend her positions with coworkers and supervisors and identified three action plans:

1. Define learning goals with regards to being assertive. (Expected difficulty level was rated 2.)
2. Research assertiveness online. (Expected difficulty level was rated 2.)
3. Role-play assertiveness in a safe environment (e.g., husband). (Expected difficulty level was rated 5.)

Katherine completed the majority of her action plans. She reported completing 9 out of 10 of Action Plan 1 and rated its helpfulness at 8 out of 10 because "it's helpful to have a target." She reported completing 8 out of 10 of Action Plan 2 and rated it as 10 out of 10 in its helpfulness, explaining that it significantly increased her knowledge of assertiveness and increased awareness of how and why she has not been assertive in the past. Finally, she reported completing 9 out of 10 of Action Plan 3 and rated it 10 out of 10 in its helpfulness. On her own, Katherine chose to implement assertiveness skills at work. While the outcome at work was far from satisfying (i.e., co-worker "did not listen"), she reported feeling good that her position was stated. Overall, Katherine reported feeling informed and better prepared to assert herself at work or during job interviews.

Discussion

While much work has explored the contribution of homework noncompliance to client outcome, less work has translated this research into specific guidelines for clinicians on how to maximize homework compliance. The current study was an initial investigation of the HAP-E, a protocol developed to facilitate homework completion within the context of BA by means of a brief FA of homework noncompliance and guidelines for clinicians on how to implement straightforward behavioral interventions tailored to address client-specific

barriers to homework completion within BA. The study was designed with a focus on maximizing external validity (Weisz, 2004) by developing the HAP-E to reflect CDC client goals, administrative needs (e.g., single session), and maximizing the inclusion of participants who normally seek services at the CDC by keeping exclusion criteria to a minimum.

Current findings provide preliminary support for supplementing career counseling with the HAP-E to enhance homework compliance. Homework compliance rates (Completion–Action Plan rates) reached an average of 70%, consistent with previous homework compliance rates following BA interventions (Gawrysiak et al., 2009; Hopko, Bell, Armento, Hunt, & Lejuez, 2005; Hopko et al., 2008). Future studies that include larger samples and a control condition are required to directly test the effectiveness of the HAP-E in enhancing homework compliance. Achieving compliance levels equal to previous BA studies is nevertheless promising given that the sample in the present study was not randomized based on baseline homework compliance levels and therefore included participants who were likely struggling with several barriers to homework compliance (as reflected by 7 out of 9 endorsing more than one barrier to homework completion and by the elevated levels of depression symptoms in the current sample).

Initial feasibility of the FA was supported in that each category was endorsed at least once by the sample and 88% (7 out of 8) endorsed more than one barrier. The usefulness of FA was further highlighted by the fact that participants strongly believed that the HAP-E identified their primary barriers to career development. Of note, every participant endorsed private environmental consequences and, despite the wide distribution of endorsements, 75% (6 out of 8) identified private environmental consequences as their primary barrier. These findings appear consistent with Acceptance and Commitment Therapy (ACT; Hayes et al., 1999), which posits that excessive experiential avoidance (i.e., of private events) underlies multiple forms of psychopathology (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996) and with BA by Martell and colleagues (2001), which emphasizes the role of avoidance of private events in depression.

Nevertheless, it is important to note that private environmental consequences were not exclusively endorsed (i.e., approximately 90% of the sample endorsed multiple barriers), indicating that additional barriers were relevant to this participant sample. Moreover, given that recruitment was ultimately dependent on counselor referral, a referral bias may have occurred in which counselors were more likely to refer clients to the study who expressed emotional struggles (i.e., difficulties with private environmental consequences). Alternatively, the high endorsement of private environmental conse-

quences as a primary barrier may reflect an overestimation of participants in their abilities to address stimulus control deficits, behavioral skills deficits, and public environmental consequences barriers, but not private environmental consequences. For example, each of Robyn's failed attempts at activation were stymied by public environmental consequences, despite identifying private environmental consequences as her most salient barrier, suggesting that single-session interventions may sometimes have to consist of sequences of functional strategies (i.e., contingency management is necessary, in addition to mindful valued activation) for more difficult cases. This area should be the focus of future research.

Interestingly, 67% (4 out of 6) of those who received a single-session of mindful valued activation to address private environmental consequences reported high level of homework compliance the following week. As asserted by Kanter, Baruch, and Gaynor (2006), the BA techniques of Martell and colleagues (2001) may adequately address excessive avoidance of private environmental consequences for many clients without the more complex ACT techniques designed to target language-based processes. Although the current findings in and of themselves are inadequate to support this assertion, they do support the utility of additional research in this area. Specifically, when would difficulties completing homework assignments require simple extensions of mindful valued activation for more sessions versus additional, more complex interventions such as ACT or cognitive restructuring techniques (i.e., Kazantzis, Deane, Ronan, & L'Abate, 2005)?

Overall, participants provided positive acceptability feedback on the HAP-E (Helpfulness–Action Plan). Seventy-five percent (6 out of 8) of participants rated both the FA and intervention as very helpful. Consideration of negative feedback revealed that 1 participant (Robyn) gave the helpfulness of the action plans a low rating, yet reported that she was looking forward to implementing the strategies again in the future. Participant 5, however, reported that the FA was unhelpful and the interventions were "naive." It appears the HAP-E simply failed in this case, and given the fact that Participant 5 reported additional psychosocial difficulties (e.g., being 5 months sober), it may be possible that the HAP-E did not include techniques that were sufficiently sophisticated to address Participant 5's needs.

This FA procedure was designed to be useful to BA therapists (where it could serve as a primary tool for assessing and intervening on homework noncompliance consistent with other BA interventions). It also may be useful for CBT therapists more broadly (where it could supplement the more cognitively oriented approach of Kazantzis and colleagues, 2005), and for settings where supportive and other nondirective approaches predomi-

nate but where some more directive intervention could be useful. Ultimately, future research is necessary to delineate empirically the parameters by which to integrate this FA procedure into existing practice; nevertheless, initial recommendations are provided here. First, the FA may be incorporated into the standard review of weekly homework assignments. When a particular homework assignment is identified as incomplete, the FA may be immediately invoked as a brief (less than 5 minutes) assessment. For some clients and therapists, simply identifying and increasing awareness of the source of the problem in behavioral terms may be sufficient to prompt more effective behavior, without the linked interventions.

Second, utilizing structured, linked interventions may be necessary to overcome the obstacles identified for some clients and all four linked behavioral interventions may be easily integrated into ongoing BA treatment plans. With regard to other treatment orientations, when stimulus control deficits, behavioral skill deficits, or public environmental consequence barriers are endorsed, implementation of stimulus control, skill training, and contingency management techniques are recommended, given the ease of their implementation. The same may not be said for mindful valued activation, and until empirical findings can act as a guide, therapists might choose to be guided by their psychotherapy orientation when targeting barriers related to private environmental consequences. Nevertheless, if subsequent FAs determine that interventions have failed in such cases, the mindful valued activation intervention would be recommended.

Conclusions drawn from the present study must be considered in light of the following limitations. First, the small sample size calls into question how well the sample represents the CDC population. Second, the lack of a control group prevents specific statements about the effect of the HAP-E on homework compliance (i.e., whether rates of homework compliance might be similar even without the HAP-E). Third, the implementation of the HAP-E by a non-CDC counselor limits the generalizability of the current findings to CDC counselors. Fourth, as no participant identified stimulus control deficits or public environmental consequences as primary barriers, no feedback was collected on the stimulus control or contingency management interventions. Fifth, progress on career development tasks was only assessed by participant self-report and was not cross-checked with more objective, behavioral outcomes. Sixth, all 8 participants in the current sample were of European-American descent, limiting the generalizability of the present findings to culturally diverse populations.

With these shortcomings in mind, the current study illustrates the potential utility of the HAP-E as a simple, straightforward means of providing counselors with additional tools to improve homework compliance with

their clients. Future research is required to explore the relative efficacy of the HAP-E compared to other approaches to addressing barriers to homework completion (e.g., Kazantzis et al., 2005). Nevertheless, the more complicated nature of such protocols (i.e., focus on cognitive process and change) and the greater time commitment required for their training may impede their implementation in a career counseling context given the current climate of sensitivity to costs and budget cuts. Given the greater ease of training presumed to be associated with BA techniques (Hollon, 2000), there may indeed be a strong case for its implementation.

References

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author.

Baruch D. E., Pfennig S. L., & Kanter J. W. (2009). *An extension of stepped behavioral activation to career development counseling*. Unpublished manuscript.

Benton, S. A., Robertson, J. M., Tseng, W. C., Newton, F. B., & Benton, S. L. (2003). Changes in counseling center client problems across 13 years. *Professional Psychology: Research and Practice, 34*, 66–72.

Brown, S., Ryan Krane, N., Brecheisen, J., Castelino, P., Budisin, I., Miller, M., et al. (2003). Critical ingredients of career choice interventions: More analyses and new hypotheses. *Journal of Vocational Behavior, 62*, 411–428.

Bryant, M. J., Simons, A. D., & Thase, M. E. (1999). Therapist skill and patient variables in homework compliance: Controlling an uncontrolled variable in cognitive therapy outcome research. *Cognitive Therapy and Research, 23*, 381–399.

Burns, D. D., & Nolen-Hoeksema, S. (1991). Coping styles, homework compliance, and the effectiveness of cognitive-behavioral therapy. *Journal of Consulting and Clinical Psychology, 59*, 305–311.

Burns, D. D., & Spangler, D. (2000). Does psychotherapy homework lead to changes in depression in cognitive behavioral therapy? Or does clinical improvement lead to homework compliance? *Journal of Consulting and Clinical Psychology, 68*, 46–56.

Carson, A. D., & Dawis, R. V. (2000). Determining the appropriateness of career choice assessment. In D. A. Luzzo (Ed.), *Career counseling of college students: An empirical guide to strategies that work* (pp. 95–120). Washington, DC: American Psychological Association.

Chambless, D. L., Baker, M. J., Baucom, D. H., Beutler, L. E., Calhoun, K. S., Crits-Christoph, P., et al. (1998). Update on empirically validated therapies II. *The Clinical Psychologist, 51*, 3–16.

Chu, B. C., Colognori, D., Weissman, A. S., & Bannon, K. (2009). An initial description and pilot of group Behavioral Activation therapy for anxious and depressed youth. *Cognitive and Behavioral Practice, 16*, 408–416.

Cuijpers, P., van Straten, A., & Warmerdam, L. (2007). Behavioral activation treatments of depression: A meta-analysis. *Clinical Psychology Review, 27*, 318–326.

Daughters, S. B., Braun, A. R., Sargeant, M. N., Reynolds, E. K., Hopko, D. R., Blanco, C., et al. (2008). Effectiveness of a brief behavioral treatment for inner-city illicit drug users with elevated depressive symptoms: The life enhancement treatment for substance abuse (LETS Act!). *Journal of Clinical Psychiatry, 69*, 122–129.

Dimidjian, S., & Linehan, M. (2003). Defining an agenda for future research on the clinical application of mindfulness practice. *Clinical Psychology: Science and Practice, 10*, 166–171.

Dimidjian, S., Hollon, S. D., Dobson, K. S., Schmaling, K. B., Kohlenberg, R. J., Addis, M. E., et al. (2006). Randomized trial of behavioral activation, cognitive therapy, and antidepressant medication in the acute treatment of adults with major depression. *Journal of Consulting and Clinical Psychology, 74*, 658–670.

Draper, M. R., Jennings, J., Baron, A., Erdur, O., & Shankar, L. (2002). Time-limited counseling outcome in a nationwide college counseling center sample. *Journal of College Counseling, 3*, 26–38.

Ekers, D., Richards, D., & Gilbody, S. (2008). A meta-analysis of randomized trials of behavioural treatments of depression. *Psychological Medicine, 38*, 611–623.

Fennell, M. J. V., & Teasdale, J. D. (1987). Cognitive therapy for depression: Individual differences and the process of change. *Cognitive Therapy and Research, 11*, 253–271.

Gawrysiak, M., Nicholas, C., & Hopko, D. (2009). Behavioral activation for moderately depressed university students: Randomized controlled trial. *Journal of Counseling Psychology, 56*, 468–475.

Harmon, T., Nelson, R., & Hayes, S. (1980). Self-monitoring of mood versus activity by depressed clients. *Journal of Consulting and Clinical Psychology, 48*, 30–38.

Hayes, S., Strosahl, K., & Wilson, K. (1999). *Acceptance and commitment therapy: An experiential approach to behavior change*. New York: Guilford Press.

Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & Strosahl, K. D. (1996). Emotional avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology, 64*, 1152–1168.

Hollon, S. D. (2000). Do cognitive change strategies matter in cognitive therapy? *Prevention & Treatment, 3*, Article 25.

Hopko, D. R., Bell, J. L., Armento, M. E. A., Hunt, M. K., & Lejuez, C. W. (2005). Behavior therapy for depressed cancer patients in primary care. *Psychotherapy: Theory, Research, Practice, Training, 42*, 236–243.

Hopko, D. R., Bell, J., Armento, M. E. A., Robertson, S. M. C., Mullane, C., Wolf, N. J., & Lejuez, C. W. (2008). Cognitive-behavior therapy for depressed cancer patients in a medical care setting. *Behavior Therapy, 39*, 126–136.

Hopko, D., Lejuez, C., LePage, J., Hopko, S., & McNeil, D. (2003). A brief behavioral activation treatment for depression: A randomized pilot trial within an inpatient psychiatric hospital. *Behavior Modification, 27*, 458–469.

Hopko, D., Lejuez, C., Ruggiero, K., & Eifert, G. (2003). Contemporary behavioral activation treatments for depression: Procedures, principles and progress. *Clinical Psychology Review, 23*(5), 699–717.

Kanter, J. W., Baruch, D. E., & Gaynor, S. T. (2006). Acceptance and commitment therapy and behavioral activation for the treatment of depression: Description and comparison. *Behavior Analyst, 29*, 161–185.

Kanter, J. W., Busch, A. M., & Rusch, L. C. (2009). *Behavioral activation: Distinctive features*. London: Routledge Press.

Kanter, J. W., Manos, R. C., Bowe, W. M., Baruch, D. E., Busch, A. M., & Rusch, L. R. (2010). What is behavioral activation?: A review of the empirical literature. *Clinical Psychology Review, 30*, 608–620.

Kanter, J. W., Santiago-Rivera, A., Rusch, L. C., Busch, A. M., & West, P. (2010). Initial outcomes of a culturally adapted behavioral activation for Latinas diagnosed with depression at a community clinic. *Behavior Modification, 34*, 120–144.

Kazantzis, N., Deane, F. P., & Ronan, K. R. (2000). Homework assignments in cognitive and behavioral therapy: A meta-analysis. *Clinical Psychology: Science and Practice, 7*, 189–202.

Kazantzis, N., Deane, F., & Ronan, K. (2004). Assessing compliance with homework assignments: Review and recommendations for clinical practice. *Journal of Clinical Psychology, 60*, 627–641.

Kazantzis, N., Deane, F., Ronan, K., & L'Abate, L. (Eds.). (2005). *Using homework assignments in cognitive behavior therapy*. New York: Routledge.

Kitzrow, M. A. (2003). The mental health needs of today's college students: Challenges and recommendations. *NASPA Journal, 41*, 167–181.

Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine, 16*, 606–613.

Leahy, R. L. (2009). Unemployment anxiety. *the Behavior Therapist, 32*, 49–51.

Lejuez, C., Hopko, D., & Hopko, S. (2001). A brief behavioral activation treatment for depression: Treatment manual. *Behavior Modification, 25,* 255–286.

Lerner, D., Adler, D., Chang, H., Lapitsky, L., Hood, M., Perissinotto, C., et al. (2004). Unemployment, job retention, and productivity loss among employees with depression. *Psychiatric Services, 55,* 1371–1378.

Linehan, M. (1993). *Cognitive-behavioral treatment of borderline personality disorder.* New York: Guilford Press.

Martell, C. R., Addis, M. E., & Jacobson, N. S. (2001). *Depression in context: Strategies for guided action.* New York: Norton.

Mazzucchelli, T., Kane, R., & Rees, C. (2009). Behavioral Activation treatments for adults: A meta-analysis and review. *Clinical Psychology: Science and Practice, 16,* 383–411.

McKee-Ryan, F., Song, Z., Wanberg, C., & Kinicki, A. (2005). Psychological and physical well-being during unemployment: A meta-analytic study. *Journal of Applied Psychology, 90,* 53–76.

Mowbray, C., Megivern, D., Mandiberg, J., Strauss, S., Stein, C., Collins, K., et al. (2006). Campus mental health services: Recommendations for change. *American Journal of Orthopsychiatry, 76,* 226–237.

Neimeyer, R., & Feixas, G. (1990). The role of homework and skill acquisition in the outcome of group cognitive therapy for depression. *Behavior Therapy, 21,* 281–292.

Neimeyer, R., Twentyman, C., & Prezant, D. (1985). Cognitive and interpersonal group therapies for depression: A progress report. *The Cognitive Behaviorist, 7,* 21–22.

Porter, J. F., Spates, C., & Smitham, S. S. (2004). Behavioral activation group therapy in public mental health settings: Pilot investigation. *Professional Psychology: Research and Practice, 35,* 297–301.

Sax, L., Bryant, A., & Gilmartin, S. (2004). A longitudinal investigation of emotional health among male and female first-year college students. *Journal of the First-Year Experience, 16,* 39–65.

Soet, J., & Sevig, T. (2006). Mental health issues facing a diverse sample of college students: Results from the college student mental health survey. *NASPA Journal, 43,* 410–431.

Spitzer, R. L., Kroenke, K., & Williams, J. B. W. (1999). Patient health questionnaire study group. Validity and utility of a self-report version of PRIME-MD: The PHQ primary care study group. *Journal of the American Medical Association, 282,* 1737–1744.

Startup, M., & Edmonds, J. (1994). Compliance with homework assignments in cognitive behavioral psychotherapy for depression: Relation to outcome and methods of enhancement. *Cognitive Therapy and Research, 18,* 567–579.

Stone, G. L., Vespia, K. M., & Kanz, J. E. (2000). How good is mental health care on college campuses? *Journal of Counseling Psychology, 47,* 498–510.

Task Force on Promotion and Dissemination of Psychological Procedures. (1995). Training in and dissemination of empirically validated psychological treatments. *The Clinical Psychologist, 48,* 3–23.

Weisz, J. R. (2004). *Psychotherapy for children and adolescents: Evidence-based treatments and case examples.* New York: Cambridge University Press.

Whiston, S. C. (2000). Individual career counseling. In D. A. Luzzo (Ed.), *Career counseling of college students: An empirical guide to strategies that work* (pp. 137–156). Washington, DC: American Psychological Association.

Worthington, E. (1986). Client compliance with homework directives during counseling. *Journal of Counseling Psychology, 33,* 124–130.

Address correspondence to Jonathan W. Kanter, Ph.D., University of Wisconsin-Milwaukee, Department of Psychology, PO Box 413, Milwaukee, WI 53201; e-mail: jkanter@uwm.edu.