

Clinical Experiences in Conducting Empirically Supported Treatments for Generalized Anxiety Disorder

Lauren E. Szkodny

The Pennsylvania State University

Michelle G. Newman

The Pennsylvania State University

Marvin R. Goldfried

Stony Brook University

Knowledge of the efficacy of cognitive-behavioral therapy (CBT) for generalized anxiety disorder (GAD) predominantly derives from randomized controlled trials (RCTs). However, there may be unique or complex issues encountered in practice, but not necessarily in the context of a controlled clinical trial. Therefore, launching a systematic dialogue between researcher and practicing clinician can be instrumental in augmenting evidence-based therapies through identification of variables that promote and interfere with clinical effectiveness. Through an initiative sponsored by the American Psychological Association's Divisions 12 (Society for Clinical Psychology) and 29 (Psychotherapy), this study aimed to examine clinical experiences conducting CBT for GAD. The participants were 260 psychotherapists who completed an online survey on assessment and therapeutic intervention utilization and their experience of factors that limit successful GAD treatment and symptom reduction. The majority of respondents reported 20 years or less experience using ESTs for GAD, typically treating clients in outpatient clinics, treatment centers, and private practice. Some of the most commonly used interventions address clients' maladaptive cognitions and elevated anxiety and muscle tension typical of GAD. Approximately one half of respondents reported

incorporating integrative techniques into treatment. Factors perceived as limiting effective GAD treatment included severity and chronicity of GAD, presence of comorbid conditions, stressful home and work environments, client motivation and resistance to treatment, and issues encountered when executing therapy techniques. This study provides researchers with clinically derived directions for future empirical investigation into enhancing efficacy of GAD treatment.

Keywords: empirically supported treatment (EST); evidence-based treatment; generalized anxiety disorder (GAD); cognitive-behavioral therapy (CBT)

GENERALIZED ANXIETY DISORDER (GAD) is a chronic problem marked by pathological worry, and typically associated with a variety of physical, emotional, and cognitive symptoms, including restlessness, fatigue, irritability, muscle tension, concentration difficulty, and sleep disturbance (American Psychiatric Association, 2000). It is a highly prevalent anxiety disorder (Kessler et al., 2005), and likely to be encountered in both clinical and primary care settings. GAD is characterized by later onset than other anxiety disorders (Kessler et al.) and comprises fluctuations in symptom severity and impairment that may not be indicative of recovery (Wittchen, Lieb, Pfister, & Schuster, 2000; Yonkers, Warshaw, Massion, & Keller, 1996). GAD is also associated with a high degree of comorbidity that can interfere with its natural remission (e.g., Bruce et al., 2005). Finally, the disability and impairment associated with

Address correspondence to Lauren E. Szkodny, M.S., Department of Psychology, 378 Bruce V. Moore Building, The Pennsylvania State University, University Park, PA 16802-3103; e-mail: les233@psu.edu

0005-7894/45/7-20/\$1.00/0

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GAD is analogous to major depressive disorder and can be more extensive than pure substance use disorders, some anxiety disorders, and personality disorders, even taking into account sociodemographic variables and comorbid conditions (Grant et al., 2005).

GAD is unique in that behavioral avoidance commonly observed in other anxiety disorders is not one of its cornerstone symptoms. Rather, individuals with GAD display a tendency to perceive threat in neutral or ambiguous stimuli (Mathews & MacLeod, 1994), and engage in worry to cope with the occurrence of negative events and alterations in emotional reactivity (Newman & Llera, 2011). This process is maintained through connecting their worry with the nonoccurrence of the feared event and subsequent reduction in anxiety. Temporally linking these events then fosters positive beliefs regarding worry's functionality, such as worry helping them to anticipate negative outcomes or worst-case scenarios or avoid shifts in negative emotions (Borkovec & Roemer, 1995; Newman & Llera). In the absence of interventions to address the aforementioned information processing biases and maladaptive cognitions, GAD has a poor prognosis captured by a low probability of symptom remission and a high likelihood of recurrence (Rodriguez et al., 2006), thereby underscoring the need for effective treatment.

Based on treatment outcome studies adhering to rigorous scientific standards (Chambless & Hollon, 1998), cognitive-behavioral therapy (CBT) is the only empirically supported treatment for GAD to date. Cognitive-behavioral interventions target principle and associated symptoms of GAD, and include identifying early anxiety triggers; challenging and disrupting individuals' misconceptions and factors maintaining worry; actively testing the validity of erroneous beliefs; using desensitization methods (e.g., imaginal exposure to worry triggers, relaxation); improving skills to manage worry and anxiety; and developing more adaptive ways of responding to neutral and ambiguous situations (Newman & Borkovec, 2002; Newman, Stiles, Janeck, & Woody, 2006).

CBT for GAD also emphasizes fostering positive expectations of treatment to predict and influence therapeutic alliance and treatment outcome (Newman & Fisher, 2010). To increase level of expectancy, clinicians educate clients about their symptoms by discussing the underlying mechanisms of the symptoms and the treatment goals. Furthermore, clients develop an alternative, more adaptive view of themselves and the world, are taught to confront their negativistic views, and learn to become more adept at identifying and understanding the function

of any forms of resistance to treatment (e.g., understanding how avoidance may interfere with the completion of homework assignments).

Extensions of these cognitive-behavioral interventions have focused on addressing individuals' intolerance of uncertainty (IU), a process marked by a heightened sensitivity to ambiguous and uncertainty-relevant information and situations (Dugas & Ladouceur, 2000). Likewise, metacognitive therapy (MCT; Wells, 2006) addresses worry (Type 1 worry) and individuals' negative interpretations of their worry (Type 2 worry or "meta-worry"). Specifically, MCT aims to identify and modify metacognitive appraisals and beliefs about worry and enhance use of adaptive coping strategies in response to worry triggers (Wells).

Although randomized controlled trials (RCTs) demonstrate the efficacy of cognitive-behavioral interventions for worry and GAD in adults and older adults (e.g., Borkovec & Ruscio, 2001; Covin, Ouimet, Seeds, & Dozois, 2008; Gonçalves & Byrne, 2012; Hanrahan, Field, Jones, & Davey, 2013), GAD still remains the least successfully treated anxiety disorder (Brown, Barlow, & Liebowitz, 1994; Heimberg, Turk, & Mennin, 2004; Newman & Borkovec, 2002). On average, only 50% of individuals still no longer meet criteria for clinically significant change at 6 and 12-month follow-up (Borkovec & Costello, 1993; Borkovec, Newman, Pincus, & Lytle, 2002; Borkovec & Whisman, 1996; Dugas et al., 2003; Ladouceur et al., 2000; Wells et al., 2010). Therefore, the research community has since endeavored to enhance CBT through investigations into both the structure and focus of interventions. CBT protocols typically stipulate length and number of sessions. However, to improve end-state functioning, Borkovec and colleagues (2002) increased the amount of client contact time from a previous study (Borkovec & Costello) with the aim that individuals would further benefit from treatment. Despite additional contact time with the therapist, the rate of remission did not improve.

Likewise, CBT has been efficacious in reducing the core diagnostic symptoms of GAD, but researchers have raised concerns that cognitive-behavioral interventions do not adequately address other factors that potentially contribute to the development and maintenance of GAD. Recognizing that individuals with GAD do not simply struggle with chronic worry and anxiety, conceptual models of GAD predominantly focusing on clients' intraindividual cognitive and behavioral experiences have recently expanded to include interpersonal and affective domains of functioning. Accordingly, a more integrative therapeutic approach has been applied that addresses aspects of GAD not commonly included in a traditional CBT

framework. To improve the efficacy of treatment, researchers have investigated and/or incorporated into their protocols interventions designed to target interpersonal and emotional dysfunction (Newman et al., 2011; Newman, Castonguay, Borkovec, Fisher, & Nordberg, 2008; Newman, Castonguay, Borkovec, & Molnar, 2004), avoidance of emotional contrasts, or sharp negative shifts in emotional state (Llera & Newman, 2010; Newman & Llera, 2011), emotion dysregulation (Mennin, 2004, 2006; Mennin, Heimberg, Turk, & Fresco, 2002, 2005; Salters-Pedneault, Roemer, Tull, Rucker, & Mennin, 2006), and acceptance and mindfulness (Roemer & Orsillo, 2002; Roemer & Orsillo, 2007; Roemer, Orsillo, & Salters-Pedneault, 2008). A couple of these integrative treatments resulted in greater end-state functioning at posttreatment compared to conventional cognitive-behavioral methods, ranging from 69% to 77% (Newman et al., 2011; Roemer et al., 2008).

Although clinical experiences often inform our empirical investigations into the phenomenology and treatment of psychiatric disorders, the dissemination of information critical to the psychological and emotional well being of our clients has traditionally been unidirectional, from laboratory to therapy office. Knowledge of the efficacy of treatment interventions for GAD predominantly derives from RCTs. Whereas RCTs contribute to the empirical foundation of CBT for GAD, there is a gap in our knowledge regarding how those treatments fare in real practice. Therefore, launching a systematic dialogue between researcher and practicing clinician can be instrumental in augmenting evidence-based therapies through identification of variables that promote and interfere with clinical effectiveness. Thus, an initiative spearheaded by Marvin Goldfried, Michelle Newman, Louis Castonguay, Jairo Fuertes, Jeffrey Magnavita, Linda Sobell, and Abraham Wolf, in collaboration with the American Psychological Association's Divisions 12 (Society of Clinical Psychology) and 29 (Psychotherapy), established a mechanism that has provided practicing therapists a voice in the research process and enabled them to report on their clinical experiences using empirically supported treatments for GAD and other anxiety disorders to the research community (see Goldfried et al., 2014, for a more thorough discussion of this initiative).

The current study reports on results of a survey administered to practicing clinicians where they indicated methods used in the assessment of GAD, cognitive-behavioral techniques used in the treatment of GAD, and perceived obstacles to GAD treatment efficacy. Recognizing that there may be unique and/or complex issues encountered in actual

practice but not necessarily in the context of a controlled clinical trial, this study afforded clinicians an outlet to provide information on their experiences conducting empirically supported treatments for GAD, which in turn provides researchers with clinically derived directions for future empirical investigation into enhancing efficacy of GAD treatments.

Method

PARTICIPANTS

A total of 316 respondents initiated the survey. Survey completion was defined by answering at least one question on the final page of the survey. Using this definition, 260 respondents completed the survey. The average completion rate for survey completers was 95.4%, with a minimum completion rate of 79% and a maximum rate of 100%. The average completion rate for survey noncompleters ($n = 56$) was 55.4%, with a minimum completion rate of 3% and a maximum rate of 93%.

Survey completers ($N = 260$) and noncompleters ($N = 56$) were compared on demographic variables (see Table 1), therapist training and education variables (see Table 2), therapist characteristics (see Table 3), and therapist experience variables (see Table 4). Independent samples *t*-tests revealed no significant group differences on age, degree to which different theoretical orientations guided therapists' work, percent success in reducing GAD symptoms, and percent of GAD clients taking medication (see Tables 1 and 3). Pearson chi-square tests revealed no significant group differences on gender, ethnicity, highest degree, training in CBT for GAD, clinical setting, average client contact hours per week, years experience using CBT to treat GAD, and length of GAD treatment (see Tables 1, 2, and 4). However, survey completers significantly differed from noncompleters on years experience conducting psychotherapy and number of GAD clients treated (see Table 4). Both groups had similar proportions of respondents with 15 years of psychotherapy experience or less. However, a greater percentage of survey completers endorsed having 16 to 30 years of experience, whereas a greater proportion of noncompleters had over 30 years experience conducting psychotherapy. Survey completers also had a greater proportion of respondents who have treated over 30 clients with GAD. A greater percentage of noncompleters treated less than 30 clients with GAD.

The reported frequencies for this study are based on survey completers. Of the 260 completers, 151 (58.5%) were female and 107 (41.5%) were male, and ranged from 24 to 85 years old ($M = 43.7$; $SD = 13.1$). The majority of the sample identified

Table 1
Demographics

	Completers	Non-Completers	<i>t</i>	<i>df</i>	<i>p</i>
	<i>M (SD)</i>	<i>M (SD)</i>			
Age	<i>N</i> = 256 43.7 (13.1)	<i>N</i> = 42 43.4 (15.3)	0.134	296	0.894
	% (<i>n</i>)	% (<i>n</i>)	χ^2	<i>df</i>	
Gender	<i>N</i> = 258	<i>N</i> = 43	0.002	1	0.962
Male	41.5 (107)	41.9 (18)			
Female	58.5 (151)	58.1 (25)			
Ethnicity	<i>N</i> = 260	<i>N</i> = 44	12.382	7	0.089
Caucasian	86.9 (226)	84.1 (37)			
African American	1.2 (3)	4.5 (2)			
Hispanic/Latino	5.0 (13)	6.8 (3)			
Asian American	3.5 (9)	0 (0)			
Native American	0.4 (1)	0 (0)			
More than one ethnicity	0.8 (2)	0 (0)			
Other	1.9 (5)	0 (0)			
Rather not answer	0.4 (1)	4.5 (2)			

as Caucasian ($n = 226$; 86.9%). With regard to education, over half of the respondents had a doctorate in clinical psychology ($n = 151$; 58.3%), 25 (9.7%) had an MA in clinical psychology, 23 (8.9%) were current graduate students, and 14 had a Psy.D. (5.4%), with other types of training accounting for less than 20% of the completer

sample (see Table 2). For those respondents holding degrees, they were conferred between 1955 and 2011.

INSTRUMENT

The survey, jointly sponsored by Divisions 12 (Society for Clinical Psychology) and 29 (Psychotherapy) of

Table 2
Therapist Training and Education

	Completers	Non-Completers	χ^2	<i>df</i>	<i>p</i>
	% (<i>n</i>)	% (<i>n</i>)			
Highest degree completed	<i>N</i> = 259	<i>N</i> = 54	13.324	13	0.423
Ph.D. in clinical psychology	58.3 (151)	51.9 (28)			
Ph.D. in counseling psychology	1.5 (4)	0 (0)			
Ph.D. in educational psychology	1.2 (3)	0 (0)			
Ph.D. in social work	0.8 (2)	0 (0)			
Psy.D.	5.4 (14)	9.3 (5)			
M.D.	3.1 (8)	1.9 (1)			
Ed.D.	0.4 (1)	1.9 (1)			
DSW	0 (0)	1.9 (1)			
MSW	1.9 (5)	0 (0)			
MSc	2.7 (7)	1.9 (1)			
MA in clinical psychology	9.7 (25)	13.0 (7)			
MA in counseling psychology	1.2 (3)	3.7 (2)			
Graduate student	8.9 (23)	9.3 (5)			
Other	5.0 (13)	5.6 (3)			
Training in CBT for GAD	<i>N</i> = 260	<i>N</i> = 43			
Graduate school	65.8 (171)	76.7 (33)	2.020	1	0.155
Books, journals, videos	61.2 (159)	51.2 (22)	1.531	1	0.216
Workshops	44.6 (116)	30.2 (13)	3.122	1	0.077
Postdoctoral experience	34.6 (90)	30.2 (13)	0.316	1	0.574
Internship	31.9 (83)	30.2 (13)	0.049	1	0.825
Peer supervision	29.2 (76)	25.6 (11)	0.240	1	0.624
Other	10.0 (26)	7.0 (3)	0.390	1	0.532

Table 3
Therapist Characteristics

	Completers	Non-Completers	<i>t</i>	<i>df</i>	<i>p</i>
	% (<i>M</i>)	% (<i>M</i>)			
Degree theoretical orientations guide practice	<i>N</i> = 260	<i>N</i> = 41			
Cognitive	42.2	41.3	0.262	299	0.793
Behavioral	38.2	33.9	1.258	299	0.209
Psychodynamic	7.4	9.5	-0.644	44.788 ^a	0.523
Experiential/humanistic	5.0	3.5	1.069	299	0.286
Family systems	4.9	8.3	-1.542	45.202 ^b	0.130
Other	2.3	3.4	-0.794	299	0.513
Success in reducing GAD symptoms	<i>N</i> = 240	<i>N</i> = 31	1.448	269	0.149
	71.7	66.5			
GAD clients on medication	<i>N</i> = 227	<i>N</i> = 26	1.137	251	0.257
	55.6	48.8			

^a Equal variances not assumed based on significant Levene's test: $F = 4.503$, $p = 0.035$.

^b Equal variances not assumed based on significant Levene's test: $F = 12.708$, $p < 0.001$.

Table 4
Therapist Experience

	Completers	Non-Completers	χ^2	<i>df</i>	<i>p</i>
	% (<i>n</i>)	% (<i>n</i>)			
Psychotherapy experience	<i>N</i> = 256	<i>N</i> = 51	15.050*	6	0.020
Less than 5 years	21.9 (56)	23.5 (12)			
5 to 10 years	27.0 (69)	31.4 (16)			
11 to 15 years	10.9 (28)	7.8 (4)			
16 to 20 years	10.2 (26)	5.9 (3)			
21 to 30 years	18.4 (47)	3.9 (2)			
31 to 40 years	7.8 (20)	15.7 (8)			
Over 40 years	3.9 (10)	11.8 (6)			
Clinical setting	<i>N</i> = 260	<i>N</i> = 41			
Private practice	47.7 (124)	41.5 (17)	0.552	1	0.458
Outpatient treatment center	62.7 (163)	65.9 (27)	0.152	1	0.697
Counseling center	8.5 (22)	9.8 (4)	0.075	1	0.784
Inpatient unit	8.8 (23)	2.4 (1)	1.981	1	0.159
Weekly client contact	<i>N</i> = 260	<i>N</i> = 40	4.231	3	0.238
Less than 10 hours	33.8 (88)	45.0 (18)			
10 to 20 hours	35.0 (91)	35.0 (14)			
21 to 30 hours	20.0 (52)	7.5 (3)			
Over 30 hours	11.2 (29)	12.5 (5)			
Experience using CBT for GAD	<i>N</i> = 258	<i>N</i> = 51	3.178	4	0.529
Less than 10 years	58.5 (151)	64.7 (33)			
10 to 20 years	21.3 (55)	15.7 (8)			
21 to 30 years	13.2 (34)	7.8 (4)			
31 to 40 years	5.8 (15)	9.8 (5)			
Over 40 years	1.2 (3)	2.0 (1)			
Number of GAD clients treated	<i>N</i> = 259	<i>N</i> = 49	15.281*	6	0.018
Less than 10	29.3 (76)	38.8 (19)			
10 to 20	20.5 (53)	22.4 (11)			
21 to 30	8.5 (22)	20.4 (10)			
31 to 40	11.6 (30)	4.1 (2)			
41 to 50	6.9 (18)	6.1 (3)			
51 to 100	11.6 (30)	0 (0)			
Over 100	11.6 (30)	8.2 (4)			
Typical length of GAD treatment	<i>N</i> = 258	<i>N</i> = 42	3.873	3	0.275
Less than 3 months	14.7 (38)	11.9 (5)			
3 to 6 months	37.2 (96)	50.0 (21)			
6 months to a year	34.9 (90)	33.3 (14)			
Over a year	13.2 (34)	4.8 (2)			

the American Psychological Association (APA), was designed to assess clinical experiences conducting empirically supported treatments for GAD. It was developed and revised in close collaboration with experts in research on GAD and its treatment and practicing clinicians who have experience delivering these interventions (e.g., Michelle Newman, Richard Heimberg, David Fresco, Douglas Mennin). Modifications were based on CBT manuals for GAD (Newman, 1998), expert feedback on the relevancy of items and need for additional content specific to the nature and treatment of GAD, and empirical literature on the phenomenology and treatment of GAD.

The final GAD survey consisted of items targeting respondent identifying information, including education and training, therapist psychotherapy experience, methods used in the assessment of GAD, cognitive-behavioral techniques used in the treatment of GAD, and eight categories perceived to limit successful symptom reduction related to GAD, individual client characteristics, and psychotherapy process and technique. Obstacles to treatment efficacy related to GAD included (a) symptoms related to worry and GAD and (b) client beliefs about GAD. Obstacles to treatment related to individual client characteristics included (c) other client problems and characteristics and (d) client's social system. Finally, obstacles to treatment related to psychotherapy process and technique included (e) client treatment expectations; (f) client motivation; (g) therapy relationship issues; and (h) cognitive-behavioral interventions. The survey also included a section whereby respondents indicated adaptations they made or could have made to resolve those issues attributed to barriers to successful treatment.

PROCEDURE

The general method is described in Goldfried et al. (2014). Mental health researchers and professionals were recruited to participate in a survey on clinicians' experiences using empirically supported treatments for GAD. The request for participants was posted on the websites, listservs, and in newsletters of the following U.S. professional organizations: APA Divisions 12 (Society for Clinical Psychology), 17 (Society of Counseling Psychology), 29 (Psychotherapy), and 42 (Psychologists in Independent Practice); Association for Behavioral and Cognitive Therapies (ABCT); Society for the Exploration of Psychotherapy Research (SEPI); and Society for Psychotherapy Research (SPR). Requests were also made on several English-speaking listservs throughout the world (e.g., Canada, the United Kingdom, Europe, and Australia). The online survey took approximately 10 minutes to complete and data were collected from

March through June 2011. Survey responses were aggregated across respondents.

Results

THERAPIST TRAINING AND EXPERIENCE

Survey respondents mainly indicated taking a cognitive and behavioral approach to treatment. On average, cognitive and behavioral orientations guided 42.2% and 38.2% of their practice, respectively. The influence of psychodynamic, experiential/humanistic, family systems, and other orientations ranged from 2.3 to 7.4% (see Table 3). Training in CBT for GAD was predominantly received through graduate school ($n = 171$; 65.8%), books, journals, and videos ($n = 159$; 61.2%), and workshops ($n = 116$; 44.6%). Less than 35% of the sample had received training through internship, postdoctoral experience, or peer supervision (see Table 2).

Frequencies of responses to therapist experience are reported in Table 4. The majority of respondents had conducted psychotherapy for up to 10 years ($n = 125$; 48.9%) and had 20 contact hours or less with clients per week ($n = 179$; 68.8%). Respondents endorsed treating clients in outpatient clinics and treatment centers ($n = 163$; 62.7%), private practice ($n = 124$; 47.7%), counseling centers ($n = 22$; 8.5%), and inpatient units ($n = 23$; 8.8%). With regard to experience treating individuals with GAD, most survey respondents endorsed up to 20 years of experience conducting ESTs for GAD ($n = 206$; 79.8%) and had treated 30 clients with GAD or less ($n = 151$; 58.3%) for 3 months to a year ($n = 186$; 72.1%). On average, respondents indicated that 71.9% of their GAD clients had comorbid disorders and 55.6% were on medications. They also reported an average success rate of 71.7% in reducing symptoms in GAD clients. Additionally, 66.3% ($n = 175$) of respondents indicated that more than symptom reduction is needed with their GAD clients.

ASSESSMENT AND TREATMENT OF GAD

Types of measures used to assess GAD symptoms before, during, and following treatment are depicted in Table 5. GAD symptoms were most commonly assessed using self-report measures at pre- and posttreatment and during the psychotherapy period (>80% of respondents). Likewise, 184 (70.8%) respondents used structured and semi-structured interviews to evaluate GAD symptoms prior to the onset of treatment, but use of this type of instrument was significantly reduced once treatment had been initiated (<30% of the sample). Approximately half of the sample (46.5 to 55.1%) used unstructured or informal interviews to assess GAD symptoms during all time points. Although

Table 5
Assessment of GAD

	Pretreatment <i>N</i> = 260	Periodic Monitoring <i>N</i> = 256	Posttreatment <i>N</i> = 243
Self-report	81.5 (212)	84.8 (217)	81.1 (197)
Structured/semi-structured interview	70.8 (184)	21.5 (55)	30.0 (73)
Unstructured or informal interview	46.5 (121)	55.1 (141)	50.2 (122)
Clinician-administered measures	24.6 (64)	19.9 (51)	19.3 (47)
Planned behavioral test	5.4 (14)	16.8 (43)	12.8 (31)
Physiological assessment	4.2 (11)	4.3 (11)	2.5 (6)

Note. Cells depict percentage with sample size (*n*) in parentheses.

less frequently endorsed compared to self-report, interview, and clinician-administered measures, planned behavioral tests (16.8%) and physiological assessments (4.3%) were also used to periodically monitor symptom fluctuation during treatment.

Frequencies of responses to techniques used in conducting CBT for GAD are reported in Table 6. In addition to psychoeducation about the nature of worry, approximately 85% or more of the sample incorporated interventions that focused on identification and monitoring of worry, anxiety, and other cognitive, emotional, and/or somatic responses to worrisome situations, as well as interventions that targeted and challenged cognitive distortions. Many respondents also reported using more behavior-oriented techniques, such as behavioral experiments and exposure homework, relaxation training, identifying and preventing safety behaviors, breathing retraining, stimulus control for worry, and worry exposure or worry imagery exposure. In addition to the traditional cognitive-behavioral interventions for GAD, many respondents (*n* = 173; 66.5%) endorsed using mindfulness or acceptance-based methods, and close to half of the sample (*n* = 126; 48.5%) indicated helping their clients understand developmental roots of their fears and worries. The large majority of respondents use both cognitive and behavioral interventions during and between sessions in the context of individual therapy for GAD. Some of the least frequently endorsed (i.e., <40% of the sample) therapeutic techniques included motivational enhancement, communication training, resolution of worry conflicts, self-control desensitization, incorporation of feedback from others about clients' GAD, group therapy, and the exclusive use of either cognitive or behavioral interventions.

OBSTACLES TO TREATMENT EFFICACY

Limitations to Treatment Progress Related to GAD

Frequencies of responses to perceived barriers to treatment progress related to GAD, such as symptomatology and associated features and client beliefs about GAD, are depicted in Table 7. The majority of

respondents identified chronicity (*n* = 179; 71.6%) and severity (*n* = 152; 60.8%) as significant limitations to therapy efficacy. Functional impairment and attentional or information-processing biases toward negative information were identified as barriers to successful treatment by just over a third of the sample (*n* = 95; 38.0%). Panic attacks were not frequently endorsed as a limitation to treatment.

The three most commonly endorsed (>50% of the sample) problematic beliefs were that fears and worries were realistic, being generally anxious is part of the client's personality and therefore unchangeable, and problems were due to external factors, such as the situation or other people. Beliefs related to the positive perceived function of worry (i.e., worry helps prepare for the worst, prevents bad things from happening, enhances motivation, and facilitates problem solving) were identified between one quarter and one half of the sample as barriers to symptom reduction. Beliefs pertaining to the negative effects of worry and anxiety (i.e., being generally anxious is abnormal/dangerous, loss of vigilance/anxiety will negatively impact relationships) were cited least frequently as potential disruptions to treatment.

Limitations to Treatment Progress Related to Individual Client Characteristics

Frequencies of responses to perceived barriers to treatment progress related to the client (i.e., other client problems and characteristics and client social system) are reported in Table 8. At least half of the sample or more perceived that comorbid personality disorders, resistance to directiveness of treatment, chaotic lifestyle, inability to work independently between sessions, and a perfectionistic/obsessive style as potential barriers to treatment efficacy. Other client characteristics reported as limiting successful symptom reduction were limited premorbid functioning, substance abuse, depressed mood/mood disorder, and reluctance to relinquish safety behaviors (between 40% and 50% of the sample). The least frequently endorsed client problems (<20% of the

Table 6
Techniques Used in Conducting CBT for GAD

	% (n)
	N = 260
Psychoeducation about the nature of worry	97.3 (253)
Identifying anxiety and worry triggers	95.4 (248)
Identifying negative thoughts and physical sensations or emotions in response to worrisome situations	93.5 (243)
Individual therapy	90.4 (235)
Using both cognitive and behavioral interventions	89.2 (232)
Cognitive restructuring of negative/distorted beliefs (e.g., putting situation into perspective)	88.8 (231)
Having client monitor worry and its outcome	85.4 (222)
Assigning out-of-session cognitive homework	81.5 (212)
Identifying and addressing directly intolerance of uncertainty	79.2 (206)
Assigning out-of-session behavioral experiments	78.8 (205)
Assigning out-of-session behavioral exposure homework	77.7 (202)
Identifying and addressing directly positive/superstitious beliefs about worry	70.4 (183)
Relaxation training (e.g., progressive muscle relaxation, applied relaxation training)	70.4 (183)
Identifying and preventing safety behaviors	67.7 (176)
Mindfulness or acceptance-based methods	66.5 (173)
Focus on in-session indicators of GAD as they arise	65.8 (171)
Breathing retraining (e.g., diaphragmatic breathing)	65.8 (171)
Stimulus control for worry (e.g., picking a time and place for worry)	65.0 (169)
Worry exposure or worry imagery exposure	65.0 (169)
Helping clarify what is important to clients (i.e., values clarification)	53.1 (138)
Self-help readings	51.5 (134)
Enhancing self-efficacy in place of worry	50.4 (131)
Helping client understand developmental roots of fears and worries	48.5 (126)
Assertiveness training	44.2 (115)
Imagery training	43.5 (113)
Motivational enhancement	35.0 (91)
Communication training	32.7 (85)
Resolution of worrisome conflicts	32.2 (84)
Self-control desensitization (i.e., having client hold onto worry trigger or worry outcome image while using relaxation to cope)	26.2 (68)
Using feedback from others about clients' GAD	18.8 (49)
Group therapy	13.1 (34)
Using only cognitive interventions (without behavioral interventions)	3.8 (10)
Using only behavioral interventions (without cognitive interventions)	3.1 (8)

sample) were history of physical or sexual abuse, low socioeconomic status, physical problems, fear of rejection, and diversity issues associated with ethnicity/race/religion/sexual orientation.

Table 7
Perceived Barriers to Treatment Progress Related to GAD

	% (n)
	N = 250
GAD symptomatology and associated features	
Chronicity	71.6 (179)
Severity	60.8 (152)
Functional impairment (e.g., travel, work, school, social)	38.0 (95)
Attentional or information-processing bias toward negative information	38.0 (95)
Panic attacks	17.2 (43)
Client beliefs about GAD	N = 248
Fears and worries are realistic	56.0 (139)
Being generally anxious is part of client's personality and unchangeable	54.4 (135)
Problems are due to external factors (e.g., situation, other people)	52.8 (131)
Worry helps client prepare for the worst	42.7 (106)
Worry actually prevents bad things from happening	41.9 (104)
Worry helps client to be motivated to get things done	37.1 (92)
Worry helps client solve problems	28.6 (71)
Being generally anxious is abnormal/dangerous	24.6 (61)
GAD is biologically based	24.2 (60)
Loss of vigilance/anxiety will have negative impact on relationship(s)	20.6 (51)

As seen in Table 8, respondents most commonly identified the role social systems can play in reinforcing/supporting client's symptoms/dependency, a high level of stress and dysfunction related to the social environment as impeding successful treatment (>50% of the sample). Social isolation of the client and lack of time due to other commitments were also identified as limiting factors. In addition to the quality of the social system, psychological problems (e.g., anxiety, controlling and critical behavior) in family members were also similarly endorsed as a barrier to CBT for GAD. The least frequently endorsed social factor was loss of family member, partner, or employment.

Limitations to Treatment Progress Related to Psychotherapy Process and Technique

Frequencies of responses to perceived barriers to treatment progress related to the psychotherapy process, including client treatment expectations, client motivation, and therapy relationship issues, are indicated in Table 9. The most commonly endorsed response ($n = 150$; 64.7%) was the belief that the therapist would do all the work to reduce symptoms and improve functioning, followed by pessimism about therapy ($n = 133$; 57.3%). More than half of the sample ($n = 129$; 55.6%) reported

Table 8
Perceived Barriers to Treatment Progress Related to the Client

	% (n)
Other client problems and characteristics	<i>N</i> = 260
Personality disorders	63.5 (165)
Resistance to directiveness of treatment (e.g., noncompliance with homework)	55.8 (145)
Chaotic lifestyle	51.5 (134)
Inability to work independently between sessions	51.5 (134)
Perfectionistic/obsessive style	50.0 (130)
Premorbid functioning is limited	44.6 (116)
Substance abuse	43.5 (113)
Depressed mood/mood disorder	42.3 (110)
Unwilling to give up safety behaviors	41.2 (107)
Intellectual/cognitive/introspective ability is limited	38.8 (101)
Poor interpersonal skills	35.0 (91)
Dependency/unassertiveness	34.6 (90)
Inability to identify automatic thoughts	33.5 (87)
Inability to identify emotions	32.7 (85)
Low self-esteem/self-efficacy	30.8 (80)
Psychotic disorder	29.2 (76)
Problems with medication (e.g., insufficient dosage, frequent changes in dosage during treatment)	24.2 (63)
Fear of exposure and associated emotional reactions	23.1 (60)
History of trauma	22.3 (58)
Client expects/requests repeated reassurance	20.0 (52)
History of physical or sexual abuse	13.1 (34)
Low socioeconomic status	11.2 (29)
Physical problems	10.0 (26)
Fear of rejection	9.2 (24)
Diversity issues associated with ethnicity/race/ religion/sexual orientation	2.7 (7)
Client social system	<i>N</i> = 248
Symptoms/dependency is reinforced/supported	58.1 (144)
Stress very high at home, school/work, or socially	56.0 (139)
Trapped in a dysfunctional home, school/work, or social situation	52.0 (129)
Social isolation of client	44.4 (110)
Family members are very anxious	37.1 (92)
Lack of time due to other commitments	35.9 (89)
Family is controlling and critical	35.5 (88)
Family does not support treatment	27.8 (69)
Loss of family member, partner, employment	11.3 (28)

as a barrier the expectation that therapy would free the client of all anxiety and worry. Over one third of the sample (37.1%) indicated that the client's beliefs that medication was needed to reduce anxiety and worry and that treatment would be brief and easy as additional barriers. The least frequently cited obstacle ($n = 52$; 22.4%) was the expectation that symptom reduction was not enough, indicating the perception that most clients were satisfied with symptom remission.

With regard to client motivation (see Table 9), the two most frequently cited issues were minimal

Table 9
Perceived Barriers to Treatment Progress Related to the Psychotherapy Process

	% (n)
Client treatment expectations	<i>N</i> = 232
Therapist will do all the work to make things better	64.7 (150)
Pessimism about therapy (e.g., due to disappointment with past therapy)	57.3 (133)
Client will be free of all anxiety and worry	55.6 (129)
Client needs medication to reduce anxiety and worry	37.1 (86)
Treatment will be brief and easy	35.3 (82)
Symptom reduction is not enough	22.4 (52)
Client motivation	<i>N</i> = 230
Minimal motivation at outset	59.6 (137)
Premature termination	57.8 (133)
Motivation decreased as client attributes gains to medications	37.0 (85)
Motivation decreased as some improvement occurs	26.1 (60)
Motivation decreased as client better understands nature and function of worry/GAD	12.2 (28)
Therapy relationship issues	<i>N</i> = 172
Therapy alliance not strong enough	48.8 (84)
Client doesn't feel his/her distress is sufficiently understood/validated	41.9 (72)
Therapist's frustration with progress	37.8 (65)
Therapist's reluctance to make client uncomfortable during exposure	34.3 (59)
Therapist's negative feelings toward client	27.9 (48)

motivation at outset and premature termination (>50% of the sample). Less than 40% of the sample identified decreased motivation due to attributing gains to medication, experiencing some improvement in symptoms, or better understanding the nature and function of GAD.

Therapy relationship issues, the results of which are reported in Table 9, were also examined as perceived barriers to treatment progress. Almost half of respondents ($n = 84$; 48.8%) perceived that a tenuous therapy alliance could impede treatment. Approximately 40% of the sample reported encountering problems conducting CBT for GAD when their clients felt as if their distress was not sufficiently understood or validated. The three least endorsed therapeutic relationship issues (<40%) pertained to negative experiences of the therapist (e.g., frustration with progress, reluctance to challenge a client during exposure, negative feelings toward the client).

Finally, frequencies of responses to perceived barriers to treatment progress related to problems/limitations associated with the cognitive-behavioral method are indicated in Table 10. Similar to therapy relationship issues, none of the problems related to cognitive-behavioral techniques were endorsed as obstacles to treatment by a majority of the sample.

Table 10
Perceived Barriers to Treatment Progress Related to Problems/
Limitations Associated With the Cognitive-Behavioral
Intervention

	% (<i>n</i>)
	<i>N</i> = 220
Does not deal with comorbid problems/symptoms	40.0 (88)
Insufficient focus on affect tolerance/regulation	39.1 (86)
Simulating anxiety-provoking situations in sessions is difficult	36.4 (80)
Relaxation does not work or causes anxiety	35.5 (78)
Does not deal with interpersonal problems	30.9 (68)
Worry and anxiety triggers not evident	27.3 (60)
Absence of guidelines for dealing with resistance/noncompliance	26.4 (58)
Does not deal with linking GAD to other clinical issues	24.1 (53)
Not enough time for client to respond to treatment within the time frame of a CBT manual (i.e., if using a manual in regular practice)	23.6 (52)
Strict adherence to CBT protocol	22.7 (50)
Client not sufficiently socialized to treatment model	19.5 (43)
Too much time spent lecturing/on psychoeducation	19.1 (42)
Treatment too directive	18.2 (40)
Does not deal with fear of interpersonal loss	15.5 (34)
Triggers for worry and anxiety are not linked to clients' history	13.6 (30)
Too much between-session homework assigned	10.9 (24)
Does not deal with comprehensive or lasting change	10.0 (22)
Current coping skills are not linked to past	9.5 (21)

However, the issues that generated the most endorsements among participants, cited by approximately 40% of the sample, were that treatment did not deal with comorbid problems/symptoms and insufficiently addressed affect tolerance/regulation, which underscores the lack of focus of traditional cognitive-behavioral frameworks on affective experience and comorbid issues. The next most frequently reported problems related to the challenge in executing CBT and potential negative consequences [i.e., difficulty simulating anxiety-provoking situations in session, relaxation was not effective and elicited anxiety in the client (more than one third of the sample)]. The fewest respondents (<11%) indicated that CBT for GAD incorporated too much between-session homework, did not effectively deal with comprehensive or lasting change, and failed to link current coping skills to the client's past experiences.

Discussion

Cognitive-behavioral therapy is a widely researched, well-validated, and extensively used treatment for

GAD in clinical settings. In an effort to open communication between researchers and clinicians, this study aimed to obtain feedback from practicing clinicians on their experiences conducting empirically supported treatments for GAD. Therapists provided information on techniques used in the assessment and treatment of GAD and on obstacles to treatment efficacy. It is important to note that respondents reported an approximate success rate of 72% in reducing GAD symptoms. This rate exceeds that of controlled clinical trials examining the efficacy of conventional CBT, and is comparable to rates reported in trials of integrative therapies for GAD (e.g., interpersonal-experiential psychotherapy, mindfulness-based CBT). This symptom reduction rate speaks to the generalizability of CBT for GAD to real practice. Given that many clinicians seem to be successful in the treatment of this chronic clinical condition, findings related to the assessment and treatment of GAD and perceived challenges to treatment are interpreted as ways to further enhance understanding of the nature of worry and GAD, training in and execution of CB techniques for GAD, and empirical investigation aimed at bridging the gap between research and practice.

Evaluation of functional domains through multimodal assessment could improve GAD case conceptualization (Antony & Rowa, 2005) and influence treatment goals. Domains of assessment in anxiety disorders, specifically GAD, may include diagnostic features, anxiety/worry cues and triggers (e.g., somatic, cognitive, environmental), potential avoidance and safety behaviors, physical symptoms and responses, skills deficits, associated distress and functional impairment, development and course of the problem, psychiatric and medical histories, environmental and family factors, and associated problems and comorbidity (Antony & Rowa, 2005). Respondents reported using a variety of assessment measures to examine baseline and change in GAD symptoms. Assessment methods varied based on the phase of treatment. For example, self-report measures were most commonly and equally used across the treatment period, but structured or semistructured interviews were predominantly used to assess GAD symptoms prior to treatment. Planned behavioral tests and physiological assessments were more frequently employed during periodic monitoring of symptoms. This type of assessment is important since worry may interfere with the emotional processing of aversive stimuli (Borkovec & Hu, 1990; Llera & Newman, 2010; Newman & Llera, 2011). However, fewer respondents reported using behavioral and physiological measures than clinician-administered or self-report instruments, which may be due to their reduced feasibility and cost-effectiveness in clinical practice.

Therefore, self-report, clinician-administered, and unstructured instruments are likely more practical and efficient methods to assess GAD symptoms and associated features. Although respondents indicated which assessment tools they used, it is not evident how frequently they engage in periodic monitoring. It is common for individuals with GAD to perceive themselves as having been worriers their whole lives. With regard to the pattern of their worry and anxiety, it is likely to vary on a daily basis, and even within days. Therefore, ongoing self-monitoring of symptoms and degree of impairment is important for fluid case formulation and elucidating the nature and course of clients' GAD. This type of assessment is especially critical given GAD's fluctuating course over time. Self-monitoring is used to track temporal patterns of worry and related maladaptive, intrusive thoughts in reaction to specific precipitants and life stressors. Identification of internal and external worry and anxiety cues through the use of repeated longitudinal data collection, such as a daily diary where these processes are recorded at regular intervals throughout the day, helps clients to (a) enhance awareness of maladaptive patterns of responding; (b) focus on the here-and-now to remedy their general preoccupation with potential negative outcomes; (c) recognize shifts in internal state; (d) diminish negative information processing biases; (e) effectively apply strategies to correct maladaptive response patterns; and (f) respond more flexibly to environmental demands (Newman & Borkovec, 2002). Diaries may also be used to examine intraindividual variation in symptoms (e.g., Fisher, Newman, & Molenaar, 2011; Newman & Fisher, 2013), daily functioning, and therapeutic progress. Determining where and when maintenance factors occur can serve as a framework for delivering targeted interventions and potentially can enhance the timing of interventions.

To illustrate, a number of beliefs related to the positive perceived function of worry were identified as impeding treatment progress. These beliefs, theorized to maintain GAD despite its degree of associated impairment in various areas of functioning, appear to be undermining the effectiveness of treatment in real practice. The more clients believe that worry helps them to prepare for the worst, the more resistant they may be to addressing their worry in treatment and working independently between sessions. Survey findings suggest that these beliefs may be complicated by other characteristics of the client or social system, such as a chaotic lifestyle or dysfunctional home life, a perfectionistic/obsessive coping style, reliance on safety behaviors, limited self-esteem/self-efficacy, and others reinforcing their symptoms. This underscores the need to periodically

assess and modify relevant internal and environmental antecedents and consequences of clients' worry and anxiety.

With regard to treatment techniques for GAD, almost all respondents indicated using psychoeducation. This intervention is key, especially during early treatment, since individuals with GAD typically view their worry and anxiety as facets of their personality, and therefore unlikely to be changeable. Given worry's perceived role as a coping strategy used to avoid potential threat and sharp emotional shifts, it is not surprising that some of the most commonly used cognitive-behavioral interventions center on addressing clients' maladaptive cognitions. Behavioral interventions (e.g., relaxation training, breathing retraining, identifying and preventing safety behaviors, stimulus control for worry) were also among the more common techniques used to address the elevated anxiety and muscle tension typical of GAD. Although not as common as the more traditional cognitive-behavioral interventions for GAD, approximately half of the sample or more has incorporated more integrative elements into their treatment, such as emotion-focused, mindfulness or acceptance-based methods and enhancing understanding of one's worry and anxiety developmental history. Integration of these interventions into a cognitive-behavioral framework is a way to address CBT's limited focus on emotional deficits observed in individuals with GAD, as indicated by approximately one quarter to one third of the sample. However, none of the perceived barriers to treatment progress related to limitations associated with CBT was endorsed by a majority of respondents, consistent with the high treatment success rate reported by respondents. Whereas respondents identified various types of comorbidity as potential complicating factors (e.g., personality disorders, substance abuse, depressed mood/mood disorder), some studies do suggest that treating clients within a cognitive-behavioral framework not only addresses core GAD symptoms, but also helps to remediate comorbid issues (Newman, Przeworski, Fisher, & Borkovec, 2010).

Several perceived limitations related to the actual conduct of CBT were reported. These include difficulty simulating anxiety-provoking situations in session, finding that relaxation does not work or causes anxiety, not sufficiently socializing clients to the treatment model, and being reluctant to make clients uncomfortable during exposure. Although each of these limitations was endorsed by approximately one third of the sample, they underscore a potential training issue. If therapists feel uncomfortable conducting a particular intervention, especially those with less experience, and approach the

technique with some trepidation, clients may become aware of the therapist's discomfort, which could undermine the efficacy of the treatment. To facilitate administration of CB techniques and enhance expertise in models and methods of therapeutic change, it is important to seek supervision, consult with colleagues, and attend trainings and workshops.

Ultimately, therapists should aim to foster collaboration, inviting clients to be active participants in all phases of the therapy process, including assessment, establishing treatment goals, and engaging in within- and between-session activities and interventions. In light of half of respondents or more indicating that issues with motivation and expectancy serve as barriers to treatment progress, cultivating positive treatment expectations and addressing erroneous beliefs may enhance motivation at onset, prevent premature termination, limit frustration with the therapy process, and promote positive outcomes. By discussing the function of treatment during initial sessions, such as emphasizing that therapy is not designed to eliminate anxiety and worry completely, but rather it aims to enhance clients' ability to cope with stressors, clients are less likely to become discouraged when they feel challenged.

Likewise, approximately one third to one half of respondents reported that a weak therapy alliance and negative feelings toward their clients hindered treatment. In an effort to address these issues, the therapist and client may work toward goals that strike a balance between what the client wants and needs to function in a more adaptive manner. Therapists are also encouraged to actively gauge the climate of the therapy room through monitoring and interpreting clients' behavior, while maintaining a structured approach to treatment and adhering to therapeutic goals. Subsequently, alliance ruptures are either less likely to emerge or more likely to be repaired, clients are more likely to feel understood and validated, and therapists are less likely to become frustrated with a lack of therapeutic progress.

The current study has several limitations that have implications for future research on clinical experiences conducting empirically supported treatments for psychological disorders. Although the majority of respondents indicated using cognitive and behavioral interventions, we did not determine the frequency with which they adhere to specific treatment manuals, use a more principle-based cognitive-behavioral case conceptualization and treatment approach, or apply these interventions in their practice on an as-needed basis. Whereas RCTs often assess adherence to a protocol to enhance the study's internal validity, it would be beneficial to examine such adherence in regular clinical practices as well as the differential

efficacy between manualized and nonmanualized CBT and factors that may interfere with adhering to a specific manual in practice. Furthermore, although respondents reported which cognitive-behavioral interventions they used to address GAD symptoms and associated features, it is unclear the degree to which their report matched their actual behavior, the amount of time spent on any one technique, and whether their application of various techniques differed based on phase of treatment. For example, psychoeducation and relaxation techniques predominantly may be used early in treatment, whereas cognitive techniques may be introduced after clients learn skills to regulate their elevated anxiety.

We also found significant differences between survey completers and noncompleters with respect to psychotherapy experience and number of GAD clients treated. The distribution of noncompleters appears to be bimodal in terms of psychotherapy experience; a greater percentage of noncompleters had 10 years or less experience and more than 30 years of experience than completers. Additionally, noncompleters had treated fewer GAD clients, despite the bimodal distribution of psychotherapy experience. It is possible that experience using CBT for GAD dictated senior and junior clinicians' choice not to complete the survey as these individuals may have felt less qualified to do so. Therefore, our findings may not generalize to therapists who have not treated many GAD clients. Also, the majority of respondents had doctoral or master's degrees in clinical psychology. The sample underrepresented mental health professionals in other fields (e.g., social workers, psychiatrists, counselors). Greater efforts should be made to disseminate future surveys to a broader range of professional networks to ensure a greater representation of mental health service providers.

Moreover, this survey did not inquire about how frequently each of the limitations occurred during the course of treatment and the degree of interference they caused. Although a particular obstacle may be perceived as common (e.g., severity and chronicity of GAD, presence of personality comorbidity, limited motivation at the onset of treatment), therapists were not asked to report the percentage of time that particular client characteristic actually interfered with treatment efficacy. Conversely, a limitation endorsed by a minority of respondents may more significantly derail treatment when encountered, thereby warranting immediate attention. To illustrate, physical problems, low socioeconomic status, and loss of employment, issues endorsed by less than 15% of the sample, could prevent clients from attending therapy to the point that progress is hindered. Likewise, clients' potential fear of rejection

and expectation of reassurance from the therapist could influence the therapeutic relationship and preclude their taking risks in treatment. Furthermore, therapists were not asked whether they felt that in the end they were able to overcome each of these obstacles within the confines of CBT. A question we did not ask—but which would be important to investigate—is whether the obstacles noted were perceived as being specific to CBT or were obstacles typical of any approach to GAD treatment. Ultimately, the differential degree of interference caused by various treatment barriers underscores the importance of effectively balancing working within a more structured CBT framework with flexibility in the process.

In future studies, it would be valuable to obtain the degree to which clinicians use certain cognitive-behavioral interventions, at what phase(s) these interventions are typically conducted, the frequency various treatment limitations occur, the degree of interference engendered, and the specificity of the obstacle to CBT. In the interest of enhancing training, future studies might also examine the relationship between therapist variables and types of interventions used and limitations encountered. Thus, the goal would be to determine whether such variables as years experience conducting psychotherapy, average client contact hours per week, years experience using CBT to treat GAD, and number of GAD clients treated interact with how the obstacles found in this survey are handled.

Conflict of Interest Statement

The authors declare that there are no conflicts of interest.

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RECEIVED: June 27, 2013

ACCEPTED: September 29, 2013

Available online 15 October 2013