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Ask Your Doctor About Exposure Therapy!: Direct-To-Consumer Marketing Of Empirically Supported Psychological Treatments For Anxiety

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“ASK YOUR DOCTOR ABOUT EXPOSURE THERAPY!”: DIRECT-TO-CONSUMER MARKETING OF EMPIRICALLY SUPPORTED PSYCHOLOGICAL TREATMENTS FOR ANXIETY

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ABSTRACT

Despite efforts to disseminate evidence-based psychological interventions (EBPIs) to mental health practitioners, most individuals with psychological disorders do not receive any form of treatment, and many others who do seek treatment do not receive EBPIs. The success of the pharmaceutical industry in effectively marketing prescription drugs directly to consumers is considered as a model for advancing dissemination of EBPIs. Utilizing undergraduate students as participants, the current study examined how potential consumers of mental health services respond to Internet-based marketing information about EBPIs. Participants viewed information about anxiety disorders and a specific type of treatment (i.e., Cognitive-Behavioral Therapy) in both text and video formats, with appeal type and tone as the independent variables. Dependent measures assessed consumer attitude and evaluation, intent to try or recommend, and recall. Multiple analyses of variance (ANOVAs) on these measures indicated that no one type of approach to advertising is universally preferred, but respondents tended to respond more favorably in terms of positive affect to emotional- and directive-based advertisements, and they were more likely to report an intent to try CBT with text-based advertisements when compared to corresponding video-based information. The results of the current study provide an important foundation for future research in direct-to-consumer marketing of psychological treatments.

DEDICATION

This dissertation is dedicated to all those who helped guide me through my academic journey, especially during times of stress, confusion, and self-doubt. In particular, I thank my parents, Dr. John Fulwiler and Madeleine Fulwiler, who were always there to support and encourage my continual learning, as well as my partner and companion, Corrie Cockrell, who chose to share her life with me.

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I. INTRODUCTION

Recent decades have produced a significant wealth of information on the development of effective psychological treatments, although progress disseminating and implementing these types of treatments has been less successful (McHugh & Barlow, 2012). Despite the existence of evidence-based psychological interventions (EBPIs) for a wide variety of specific problems, most individuals with psychological disorders do not receive any form of treatment (Kessler et al., 2005), and many others who do seek treatment do not receive EBPIs (Wang, Berglund, & Kessler, 2000). This gap between treatments supported by research and actual implementation in practice has generated an interest in developing more effective strategies for disseminating information about EBPIs. One approach in particular, direct-to-consumer advertising, may provide a promising new direction (Santucci, McHugh, & Barlow, 2012).

Direct-to-consumer (DTC) advertising refers to the marketing of specific prescription drugs to the people who might use the medication as opposed to the medical professionals who might prescribe it (FDA, 2012). Although these dissemination strategies are contemporary with regard to clinical psychological research, the pharmaceutical industry provides an historic and clear model for their efficacy. For example, the first printed newspaper advertisement in 1708 contained DTC marketing for a patented medicine, and this has remained a central component of pharmaceutical advertising in the United States ever since (Bhanji et al., 2008). The pharmaceutical industry has found that investment in this approach is fruitful, given that Americans are much more likely to request specific drugs that they have seen advertised (Gilbody, Wilson, & Watt, 2005) and also show a greater likelihood to learn about specific

health conditions based on the advertised medications used to treat them (Aikin, Swasy, & Braman, 2004). Financially, spending on DTC advertisements has often resulted in great profits to pharmaceutical companies, as drug sales have been demonstrated to return as much as four times the advertising costs for certain medications (Kaiser Family Foundation, 2003).

Dowling (2004) describes the rationale behind DTC advertising as emphasizing "pull" rather than "push" factors. A push strategy intends to increase a potential consumer's awareness of a product or service at the time of sale, as seen in traditional marketing efforts. The developer of a treatment or service "pushes" the information to an intermediary, who then distributes it to the end users. As Becker (2015) points out, this approach is typical for dissemination of mental health services, since EBPIs are distributed to practitioners (the intermediary) who in turn provide them to treatment-seeking individuals. Alternatively, DTC marketing relies on "pull" factors, attempting to bring the consumer to the product or service more actively. This approach circumvents the intermediary by directly targeting the end user of a specific service. The classic "Ask your doctor about [drug name]..." advertisement illustrates this approach in practice with respect to the pharmaceutical industry. Ventola (2011) notes that pharmaceutical companies began using pull strategies using mass media after 1997, when the Food and Drug Administration approved direct advertising of medications. Up to that point, a traditional marketing strategy of sending representatives to primary care doctors and psychiatrists to "push" their medications to patients was the dominant strategy. Although the drug industry has emphasized DTC tactics to strong effect since they were made legal, it should also be noted that combined push and pull approaches are still the norm and have been associated with significantly increased sales during across the industry since the late 90s (Porter, 2011).

The downside to the success of these marketing strategies is a potential overreliance on medications among individuals who may not need psychotropic drugs (Moynihan & Cassels, 2005). For example, one study of DTC advertising found a 32% higher probability of being prescribed an antidepressant based only on pharmaceutical marketing spending patterns, suggesting increased diagnosis and prescription rates attributable directly to advertising about specific antidepressant drugs (Donohue et al., 2004). This ability for DTC advertising to affect physicians' existing behavior and prescription patterns has been demonstrated to be sufficiently pervasive that it has been determined to affect prevalence rates of mental illness. Park and Grow (2008) surveyed consumers about their attitudes towards drug advertisements and found that individuals who have a familiarity with specific prescription antidepressant brands are significantly more likely to overestimate prevalence and risk of depression. Similarly, in a comprehensive review of prescription trends, Rosenthal and colleagues (2003) used econometric analysis to demonstrate changes in physician behavior, estimating that DCT advertising resulted in a 13 to 22 percent increase in the overall spending on specific drug prescriptions written.

Thus, although the evidence regarding the effectiveness of these marketing strategies in terms of economic indicators is apparent, the degree to which these methods provide consumers with adequate information about the appropriate treatment for their individual problems is unknown. To the extent that there are shortcomings, the types of changes seen in both consumer as well as practitioner behavior suggest that DTC advertising is at least partially responsible for limitations in knowledge related to these healthcare decisions. Kravitz and colleagues (2005) suggest that DTC advertising has resulted in individuals receiving a particular drug if requested by name even if that medication's use is not supported for a specific disorder. Similarly, it has been noted that off-label use of medications has been on the rise (Radley, Finkelstein, &

Stafford, 2006), particularly with regard to psychotropic medications. In this latter group of drugs, off-label usage has more than doubled over the past decade (Wu, Wang, Katz, & Farley, 2013), despite unfavorable side effects associated with off-label psychotropic regimens and a necessary lack of clinical evidence for their efficacy (Alexander et al., 2011).

The move towards biomedical treatment for psychological problems is particularly noteworthy with respect to anxiety disorders. Comer, Mojtabai, & Olfson (2011) found that over a 12-year period, off-label antipsychotic use roughly doubled for the treatment of anxiety disorders, a marked increase when compared to other disorders. Furthermore, in their review of pharmacotherapy for mental health disorders, Ravindran & Stein (2010) found that selective serotonin reuptake inhibitors (SSRIs), traditionally used in the treatment of depression, are often considered first-line pharmacological treatments for anxiety disorders. Evidence suggests this type of biomedical treatment of anxiety may be effective, especially when compared to other pharmacological options (e.g., Bandelow, Boerner, Kasper, Linden, Wittchen, & Möller, 2013). Unfortunately, these treatments often overlook potentially significant cognitive side effects, such as memory impairment, inattentiveness, fatigue, lack of concentration, and apathy (Popovic, Vieta, Fornaro, & Perugi, 2015). In fact, individuals with anxiety disorders are often uniquely affected by certain SSRI side effects, such as jitteriness or restlessness (Farach et al., 2012).

At the same time, the past several decades have produced tremendous advances in therapeutic EBPIs for anxiety-related problems, with specific treatments developed that have shown considerable clinical efficacy (e.g., Butler, Chapman, Forman, & Beck, 2006; Chambless & Hollon, 1998; Kendall, 2012; Lonigan, Elbert, & Johnson, 1998; Nathan & Gorman, 2007; Roth & Fonagy, 2005). These types of treatments tend to be less costly to administer and produce fewer side effects over the long term (e.g., Apeldoorn, Stant, Hout, Mersch, & den Boer,

2014). Cost-effectiveness is a particularly important component of medical services, and existing data indicate that CBT is a preferable option for both consumers and mental health providers when considering the long-term costs of treatment (Heuzenroeder et al., 2004). However, despite efforts to increase dissemination of EBPIs, progress improving service delivery of treatments has been slow, especially with anxiety-related disorders (Beidas & Kendall, 2010). This deficit is especially noteworthy given the high base rate of anxiety disorders (Kessler et al., 2005) and the types of problems associated with biomedical approaches to treating anxiety. As a result, research regarding direct-to-consumer advertising about EBPIs for psychosocial interventions may be especially useful for improving delivery of the most effective treatments for anxiety disorders.

Anxiety: Prevalence, Impact, and Treatment

Anxiety disorders are among the most common psychological disorders. Individuals suffering from anxiety seek treatment from general medical health providers for their symptoms as often as they do from mental health professionals (Shear, 1995). Anxiety disorders are characterized by both psychological and physiological symptoms, including worrisome thoughts, muscle tension, physical aches, sleeping difficulties, stomach problems, restlessness, and irrational fears (American Psychiatric Association, 2013). These symptoms manifest with a wide range of expression, including syndromes characterized by general worry about nonspecific events to avoidance of specific fear-provoking stimuli. These various expressions of anxiety collectively comprise the most commonly occurring psychological disorders, with some estimates as high as 25% lifetime prevalence (Kessler et al., 1994). Specific phobia is generally cited as the most common variety of focal anxiety disorder, occurring in 6-12% of individuals, followed by social phobia, appearing in up to 10% of individuals. Post-traumatic stress disorder

(PTSD), considered an anxiety disorder until DSM-5, is third most common, though lifetime prevalence rates vary widely across different populations (i.e., 1-2% in Western Europe, 6-9% in North America, and 10%+ in countries affected by longstanding conflict; Kessler et al., 1994). Other anxiety disorders have much lower rates, rarely occurring above 2-3% with the exception of panic disorder (2-5%) and generalized anxiety disorder (GAD; 3-5%; (Kessler et al., 2010).

In addition to the psychological burden imposed on individuals who suffer from these afflictions, anxiety disorders are the source of great social and economic costs. With respect to United States health care systems, anxiety disorders accounted for between $42.3 and $46.6 billion dollars spent in 1995 (DuPont et al., 1996), almost one-third of the $148 billion dollars spent on overall mental health care at that approximate point in time (Greenberg et al., 1999). Much of this cost comes from repeated use of health care services by the same individuals, especially those with anxiety disorders that manifest symptoms similar to those of physical illness or terminal disease (e.g., cardiac symptoms; Huffman, Pollack, Stern, 2002) In addition, primary care physicians often fail to diagnose correctly many common anxiety-based disorders, resulting in costly referrals to specialists like cardiologists, neurologists, and gastroenterologists (Teng, Chaison, Bailey, Hamilton, & Dunn, 2008). Accordingly, the cost of visits of overall health care services for individuals with anxiety disorders are on average twice as much as for those without anxiety disorders (Simon et al., 1995). These costs have a significant impact on employment (Lépine, 2002), productivity (Marciniak, Lage, Landbloom, Dunayevich, & Bowman, 2004), and the ability for medical professionals to provide effective services (Teng et al., 2008). However, a body of literature suggests anxiety disorders are highly treatable through circumspect, time-limited, cost-efficient psychological interventions.

Among the most supported psychosocial treatment approaches for anxiety disorders is Cognitive-Behavioral Therapy (CBT). This general constellation of strategies differs somewhat in accord with the type of anxiety disorder being treated, but all forms focus on ameliorating symptoms by targeting underlying maladaptive cognitive processes and behavioral patterns that contribute to psychological dysfunction. The CBT model posits that the symptoms of anxiety disorders are both caused and maintained by fearful, maladaptive cognitions and that symptom reduction can occur when these dysfunctional cognitions are modified through a number of behavioral and cognitive techniques, especially exposure to feared stimuli (Beck, 1995; 2011). CBT has been demonstrated to be effective in treating a broad range of disorders when compared with waitlist and control conditions (Butler, Chapman, Forman, & Beck, 2006), as well as with other forms of psychotherapy and pharmacological intervention (Butler, et al., 2006; Chambless & Gillis, 1993). Major reviews (e.g., Hofmann & Smits, 2008) have concluded that CBT is an efficacious treatment for anxiety disorders across clinical settings, diverse populations, and different symptom presentations. Further, comparisons made in this meta-analysis demonstrated that the observed outcomes produced medium to large effect sizes comparing treatment to placebo control groups. Additionally, research suggests that CBT can produce equivalent or better outcomes that endure longer at lower cost (Heuzenroeder et al., 2004). When considered in the context of the necessarily time-limited nature of CBT, these findings of equivalent effects promote considerable cost advantage for therapy over medication, given that effects for the latter tend to diminish or disappear with the retraction of pharmacotherapy. Patients also tend to prefer psychological treatments over pharmaceutical ones (McHugh, Whitton, Peckham, Welge, & Otto, 2013), despite the potential success of pharmaceutical DTC strategies engendering greater awareness of medical interventions. Although a complete review of the outcome literature is

beyond the scope of this study, it bears noting that the American Psychological Association (APA) categorizes CBT as a well-established and efficacious treatment for anxiety due to the body of literature that has repeatedly demonstrated its superiority to other treatments (Chambless & Ollendick, 2001). Other more contemporary methods of distilling treatment outcome research for children and adolescents (Chorpita, Daleiden, & Weisz, 2005) have also demonstrated the comparative efficacy of CBT techniques across treatment outcome studies in youth (Chorpita & Daleiden, 2009).

Despite strong empirical support, CBT is measurably underutilized in clinical practice (APA Task Force, 1994). Further, there is a broader trend of limited and/or non-effective service delivery for these disorders in general. Data from the National Comorbidity Survey Replication (NCS-R), for example, revealed that the majority of individuals suffering from a mental disorder did not seek any form of treatment for their problem, and many of those who did received "minimally adequate services" (Wang et al., 2005). Additionally, although general information of mental health problems and psychotherapy as treatment have generally improved (e.g., Jorm, Christensen, & Griffiths, 2006), public knowledge regarding effective types of mental health care is still lacking (Sheyett, McCathy, & Rausch, 2006).

Therefore, it is unlikely than any given individual suffering from an anxiety-related condition would seek out a specific evidence-based practice (i.e., CBT) in their attempts to remedy their symptoms. Taken together, the extant research suggests that individuals who present with psychological problems in medical settings are unlikely to receive appropriate treatment given the types of services administered in these settings, the side effects and/or off-label use of medications, and the generally limited set of psychosocial providers.

The Nature of Anxiety and the Case for Dissemination

Barlow's (2001) extensive examination of the history of anxiety explores the adaptive value of emotional behavior and its role in the evolutionary success of animals (for example, fear promoting the avoidance of threat through a fight or flight response). Various theoretical models evaluate this response in terms of neurobiology (e.g., Eysenck, 1967; Gray, 1982; Kagan, 1989), cognition (e.g,. Lazarus, 1991; Mandler, 1975; Schachter & Singer, 1962), and combinations of biology and psychology (e.g., Beck, 1993; Hallam, 1985). Regardless of theoretical foundation, the universality of this response as an adaptive mechanism is evident across cultures and species (Izard, 1977). However, in individuals with anxiety disorders, this normal, adaptive response is triggered in response to nonthreatening or otherwise inappropriate stimuli. Although it is a complex biopsychosocial process, anxiety disorders most often manifest in the form of these "false alarms." Accordingly, one of the most common components of any evidence-based treatment is to help individuals identify the basic elements of this process, such as antecedent events that contribute to the expression of anxiety-related symptoms. Education about the nature of anxiety as generally adaptive and potentially individually excessive forms the foundation for effective psychotherapy for anxiety disorders (Foa & Kozak, 1985). A logical extension of this educational strategy is to design exposure-based interventions to test assumptions regarding legitimate vs. excessive estimations of threat. These approaches to treatment, which are primarily based on cognitive-behavioral theory, are strongly supported by evidence and formally considered first-line treatments (Institute of Medicine, 2008; Powers & Beacon, 2013). Unfortunately, this is not well known in the general public despite greater efforts to improve the dissemination and implementation of specific types of treatment (McHugh & Barlow, 2012).

Current research has begun to focus on increasing the spread of evidence-based psychological interventions (EBPIs). Research efforts aimed to understand the spread of EBPIs

in applied contexts are rooted in diffusion research, which frequently examines the rate at which innovations are adopted and methods that most effectively propel this process (Rogers, 2003). This adoption rate is contingent upon the integration of an innovation into daily life, the channels through which information is communicated, and the success with which it is adopted by a group of individuals working toward a common goal. This process often demands adaptation with regard to mental health treatments, however, given several distinctions from other healthcare services. These include increased stigma associated with diagnosis, less infrastructure for measuring treatment quality, less communication among clinicians treating the same client, and a more diverse workforce of providers from allied professions in terms of educational background and degree of scientific training (Becker, 2015). Because of these particular obstacles, the research-to-practice gap has been the primary focus of most dissemination efforts (Santucci, McHugh, & Barlow, 2012). Clinician-administered interventions represent the predominant focus of adherence to evidence-based practice guidelines as a means of promoting the use of research-tested therapies. With treatment for particular disorders, service providers are seen as the primary adopters who facilitate this integration and have accordingly been the primary targets (Becker, 2015).

The majority of these dissemination efforts have targeted mental health providers in what Gallo, Comer, & Barlow (2013) call a "top down" approach. These efforts have had some degree of success, such as the nationwide initiative in the Veterans Health Administration (VA) to implement a particular EBPI, Cognitive Processing Therapy (CPT), for the treatment of post-traumatic stress disorder. Resick, Foa, Ruzek, & Karlin (2008) found that 75% of practitioners maintained adherence to the training they received in this specific EBPI, a rate much higher than other, similar efforts (McHugh & Barlow, 2010). A preponderance of evidence from most other

studies suggests, however, that these "top down" efforts do not achieve their intended goals as effectively as possible. For example, many traditional training methods do not incorporate essential active learning techniques, such as ongoing feedback and supervision, resulting in lower rates of effective adherence (Beidas & Kendall, 2010). Other large-scale reviews have demonstrated the gap between controlled research and actual clinical practice remains large (e.g., Kendall et al., 2008; Stewart & Chambless, 2007; Young et al., 2001). More sophisticated methods of diffusion and dissemination, therefore, are necessary if practice is to become more evidentiary in nature.

There are instances of programs of dissemination that have attempted to go beyond providing clinicians with a greater access to evidence-based resources for mental health care to facilitate a more integrative approach. For example, the United States federal government has focused on empowering state mental health agencies (SMHAs) through various efforts to disseminate EBPIs. Funding initiatives from federal agencies like the Substance Abuse and Mental Health Services Administration (SAMHSA) and the National Institute of Mental Health (NIMH) have been used to stimulate incorporation of training, resource kits, and structural changes at the level of service providers. The National Implementing Evidence-Based Practices Project was one such initiative that sought to develop, test, and refine the implementation of specific resource kits ("toolkits") for clinicians serving adults with severe mental illness (Rivard et al., 2012). The primary focus of these efforts was to enable providers of mental health care with the tools necessary for treating commonly presenting problems using EBPIs, but this initiative was unique in its efforts by incorporating broader change at the structural level, as well as attempting to involve consumers to a greater extent. Drake and colleagues (2009) found variability in the program's success and noted that several factors improved the quality of EBPI

implementation, including funding, training, administrative support, and staff turnover. Similarly, McHugo and colleagues (2007) documented results from all states involved in the project and found that 55% of the participating sites had high fidelity of implementation, based on independent interviews with key personnel and clients, chart reviews, and program observations. Another study tracked the program after two years and found that there was a high rate of sustainability for most EBPIs implemented (Swain et al., 2010). These research efforts also demonstrated some of the barriers to successful implementation, including inadequate funding, poorly supported training, lack of commitment from agency leadership, and staff turnover (Swain et al., 2010). Effective implementation, on the other hand, has been demonstrated by studies carefully selecting and training practitioners, organizing infrastructure to ensure adequate support and supervision, and involving communities and consumers in the selection and evaluation of programs (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005). It has also been noted, however, that these models are rarely followed in practice and sustainability of EBPIs disseminated in training studies is limited (Bauer (2002; Miller, Sorensen, Selzer, & Brigham, 2006; Pagoto et al., 2007).

Additionally, previous research suggests that little has been done to educate mental health consumers about EBPIs. This second gap exists between those who need services and those who seek them, referred to as “unmet need” or the “treatment gap” (Demyttenaere et al., 2004; Kohn, Saxena, Levav, & Caraceno, 2004). As noted, the majority of individuals with a psychological disorder in the United States do not receive treatments for their symptoms (McHugh & Barlow, 2012). Further, few have any framework to understand what sort of resources to seek (Becker, 2015), and limitations in healthcare service literacy for these issues are more significant in minority groups (Kataoka, Zhang, & Wells, 2002; Sherbourne, Dwight-Johnson & Klap, 2001).

Previous attempts to address this gap have not demonstrated measurable improvements; in fact, the proportion of adults receiving therapy services in America has decreased over the past ten years, from 7.4% of the population to 6.6% (Substance Abuse and Mental Health Services Administration, 2013). As a result, there is clearly a need to expand the scope of dissemination efforts to target consumers and provide greater information and awareness about the types of treatment available for particular mental health disorders.

Direct-to-Consumer Advertising for Psychotherapy

The aforementioned success of the pharmaceutical industry suggests that direct-to-consumer advertising could provide a possible solution to the problem facing the effective dissemination of psychological treatments (Santucci, McHugh, & Barlow, 2012). Although the "top-down" approach that serves as the fundamental model for expanding the use of EBPIs is certainly important, efforts that focus entirely on mental health providers are unlikely to remedy the larger issue of unmet need presented by the treatment gap. There have been organizational efforts to address limitations in public knowledge through the Anxiety and Depression Association of America (ADAA) and the International Obsessive Compulsive Disorder Foundation (IOCDF), for example. These professional groups have placed increased emphasis on providing consumers with information about the types of services available; for example, the IOCDF has hosted events, provided web resources, and expanded media coverage about CBT techniques as a treatment for obsessive compulsive disorder (Szymanski, 2012).

The IOCDF uses a variation on the traditional conference or convention (at which professionals gather to share and disseminate their research to their colleagues) by hosting an annual conference of research presentations, talks, and other events to which consumers are invited. This unique approach allows consumers to gain access to information about the latest

research and developments in OCD treatment, providing direct access to the professionals involved in the field. Szymanski (2012) estimates that approximately one-third of attendees for these events are mental health professionals, one-third are individuals with OCD, and one-third are family members. While this arrangement seems to be an effective model to make annual research conventions more consumer-friendly, the burden of time, travel, and logistics for the individual who is interested in these resources means it is not a complete solution. Smaller-scale presentations such as workshops hosted by university clinics (e.g., the Columbia University Clinic for Anxiety and Related Disorders) could be a potential supplement to improving consumer access to this essential information.

Research on the efficacy of DTC advertisements for psychological interventions is still in its infancy, so there is no specific template to adopt for applying this idea for cognitive-behavioral therapy of anxiety disorders. Although the pharmaceutical industry has demonstrated the effectiveness of simultaneous push and pull marketing techniques, psychotropic drugs have the benefit of being a tangible product, which is more easily defined and described than psychosocial interventions. EBPIs, however, are less easily evaluated by the typical consumer, and as a service rather than a tangible product, psychotherapy is more difficult to describe in terms of its moment-to-moment value. In addition, unlike the standardization of pharmaceutical treatments, the delivery of psychological services can vary from provider to provider (Resick et al., 2008). Thus, since research on DTC marketing for psychological services is a relatively recent endeavor, crafting a suitable template for examining this research question is difficult. However, literature from the advertising and marketing field, as well as the successful model provided from psychopharmacology, can provide valuable insight into the development of a similar approach for psychotherapy.

The Marketing Mix

Adapting DTC marketing efforts to the field of psychological treatments has been comparatively overlooked as a significant research interest. Gallo, Comer, and Barlow (2013) outline some of the strategies used by organizations such as the IOCDF and the ADAA, but few other large-scale efforts to incorporate pull-based DTC advertising efforts in clinical psychology have been studied. In marketing literature generally, however, there are certain elements that have been demonstrated to be effective. Zeithaml, Bitner, and Gremler (2012) describe this as the "marketing mix," one of the most commonly used planning frameworks for advertising. This framework includes broad principles widely referred to as the "Four Ps": product, price, place, and promotion. As Becker (2015) argues, any DTC efforts for mental health services need to focus on issues involving education about EBPIs, information about how to find and receive those services, specific questions to ask about EBPIs, and criteria to allow the customer to ensure they are receiving the services advertised. Traditional marketing theory provides a useful system of guidelines in developing stimuli to meet this end, as evidenced by the material success specific drugs marketed by pharmaceutical companies.

Product. Defining the service or product being marketed is a critically essential part of effective DTC advertising. In the case of EBPIs, this component of marketing requires a decision between advertising therapeutic services broadly and generally (e.g., CBT, Acceptance and Commitment Therapy, family therapy) or in the form of specific interventions (e.g., exposure and response prevention, mindfulness based stress reduction). Given limited consumer knowledge about therapeutic treatments, a broad-based, general approach to disseminating EBPIs for anxiety disorders may be the most effective initial step towards improving product knowledge (i.e., it seems unlikely that advertisements about highly specific forms of treatment

would resonate with the target audience). This approach could center on the fundamental factors in anxiety that contribute to negative symptoms and general models used to address these symptoms, with further information about specific types of treatment. As Donohue, Cevasco, & Rosenthal (2007) demonstrated, pharmaceutical marketing efforts for one product increased demand for the entire class of products—a phenomenon that may bolster treatment-seeking for therapeutic services across all disorders as marketing for anxiety-related EBPIs expands. From a treatment developer standpoint, successful advertising is contingent upon an examination of what particular treatments are being disseminated and what services or other products currently exist as competition. Describing the unique competitive advantage of therapeutic services relative to other options for treatment is the key to defining this component of the marketing mix. From the perspective of consumers, any effective advertisement should be able to answer questions about what they value in a type of treatment, what options are available, and why they would select one option over another. For example, it may be more beneficial to compare EBPIs to medication rather than with one another; given the limited knowledge among consumers about differences in therapeutic models, defining the service in this way may lead to greater treatment-seeking behavior.

Price. Another key component of marketing, the price of goods and services is critical to consumers in both a direct sense (i.e., what he or she must pay for that good or service) as well as in terms of the barriers that may prevent treatment seeking. These barriers may be external, such as difficulty in finding a provider, insurance coverage issues, or scheduling/time concerns, or they may be internal, such as attitudes, beliefs, knowledge, etc. One limitation with advertising therapeutic treatments is that prices are often set by third-party payers and insurance carriers, giving treatment developers less autonomy in financial considerations. However,

treatment developers and providers can help reduce other external barriers by decreasing the difficulty of attending services (e.g., implementing technology, such as computer-assisted therapy; locating services at locations where treatment-seeking is already occurring, such as primary care offices, schools, etc.; and incorporating home-based components to treatment), although some data exist that suggest the cost and price of services may not need to be low to ensure improved treatment outcomes (e.g., Copeland, Hall, Didcott, & Briggs, 1993; Robart, 2014). A more relevant question for both treatment providers and potential consumers to examine may be whether it is worth the costs to engage in a particular treatment. Providing information educating consumers about the general price of services may be useful, but a more effective strategy may be to emphasize the cost-effectiveness of EBPIs with respect to other treatment options. These advertisements could also contain information about non-financial costs, such as side effects from medications, as well as resources to assist with the reduction of financial burdens (such as a "Find a therapist" option online to locate providers covered by insurance).

Place. Place refers to both the channels through which information is disseminated, as well as the actual location of the delivery of specific services. Marketing decisions about place must carefully consider ways in which the information about a particular service is distributed. Due to the characteristics of services versus products (services are intangible, vary across providers, etc.), a typical consumer may have more difficulty evaluating the relative quality of a service when compared to a tangible product; unlike marketing a specific medication, creating a magazine advertisement for an abstract therapeutic approach like CBT proves to be more difficult. Zeithaml, Bitner, and Gremler (2012) argue that this is why word-of-mouth communication about services is often considered more credible than direct advertising. By its

very nature, therapy is a service that requires the customer to experience it to determine its value, suggesting that any efforts to increase the dissemination of EBPIs may consider incorporation of word-of-mouth endorsements as a critical source of influence.

Deciding on where to place DTC marketing materials is critically important for reaching both health care providers and consumers as a means to engender discussion of treatment options. In addition, the importance of first-hand accounts of specific services suggests that consumers look for personal testimony in making decisions about somewhat intangible products. Individuals increasingly report using the Internet as their primary source of information for health-related questions, commonly using general search engines to find answers to their questions (Morahan-Martin, 2004). The Internet has quickly become the first place individuals begin their search for health-related questions, although the accuracy and value of this type of information is often suspect (Hesse, et al., 2005).

In addition, place refers to the actual location in which services are delivered. Time- and cost-related issues are increasingly moving many health services out of traditional office-based settings, as technology-assisted interventions continue to gain evidence based support (Kazdin & Blase, 2011). A specific area for this expansion of service delivery is the Internet. Several meta-analyses of the efficacy of Internet-delivered cognitive behavior therapy demonstrated the benefits of this type of approach, showing similar effectiveness to face-to-face CBT when coupled with resources and therapist support (Andersson & Cuijpers, 2009; Andrews, Cuijpers, Craske, McEvoy, & Titov, 2010). The unique nature of psychotherapy as a service makes it potentially well-suited to take advantage of this aspect of marketing, giving it a competitive advantage over the DTC marketing efforts of the pharmaceutical industry.

Promotion. The most well-known and commonly associated component of the marketing mix involves the active process of communicating information to the consumer. How promotion occurs relies heavily on the previously discussed components, such as the service attributes defined by the product itself, the availability and related costs, and the channels through which the information is distributed. Particularly important is establishing the competitive advantage of a particular product or service when compared to alternatives. The pharmaceutical industry has an excellent track record of using these types of promotional strategies known as "positioning statements," a concise description of the target market as well as a portrayal of how that market should perceive the brand (Stayman, 2013). Examples of this include early advertisements for Zoloft referring to it as "the number one prescribed drug of its kind" or Ambien's claim of a unique two-layer system that allows the consumer to stay asleep longer than other sleep aids (Becker, 2015). While these statements do not necessarily provide the consumer with a great deal of specific evidentiary knowledge, they clearly provide a distinction between the product being advertised and other, seemingly less desirable alternatives.

Perhaps the most important part of the promotional aspect of marketing is the ability to relate to the consumer successfully. This feature involves using language that is comprehensible, appealing, and clear, with the ultimate goal of resonating with a specific target group. Although psychology as a field has been somewhat ineffective implementing this component of marketing with respect to research findings, there are models in place that are not being utilized effectively. The Centers for Disease Control and Prevention (CDC) provided health care providers with a set of guidelines to help translate complicated, scientific information into a concise, palatable, and meaningful message for the target consumer (Centers for Disease Control and Prevention, 2009). While some health care agencies have understood the importance of this type of promotion, the

realm of clinical psychology has embraced it less successfully. Even though resources exist to help explain some of the concepts behind EBPIs, Becker (2015) found that a majority of respondents indicated confusion and negative opinions when surveyed about their reactions to information about "evidence-based" mental health treatments.

Finally, promotion of a product involves specific appeals to consumer interests. Current DTC advertisements of pharmaceutical products provide some clues to understanding how consumers respond to these various types of marketing appeals. Because they are regulated by the FDA and are almost always product-focused, these ads are required to include a certain amount of factual information and therefore rely on a rational-type approach. However, findings from several examinations of the types of appeals used in prescription drug advertisements indicate that almost all include some emotional appeal component as well (Pinto, 2000). Macias, Pashupati, and Lewis (2007) reviewed television and print ads from pharmaceutical companies and found that rational and emotional appeals were used in a similar fashion, although print ads were found to have more drug information than TV ads. This feature of text-based ads suggests it as a more appropriate medium for disseminating information about mental health services; given the public's limited knowledge about EBPIs, providing information via printed, Internet-based sources may be essential to market treatment for psychological disorders.

Marketing psychological services

The body of evidence surrounding dissemination and diffusion of knowledge about psychological treatments points to a deficit in efforts to incorporate consumers and leverage existing methods of demonstrably effective marketing techniques. Not only are most individuals unaware of what types of treatments are effective, those who do have some information that allows them to discern differences between treatment approaches are frequently unaware of the

best way to access these services. Additionally, little has been done by researchers to understand how to communicate this information more effectively to actual consumers. As such, an investigation of the basic strategies for informing, motivating, and influencing consumer behavior in the realm of psychological treatments is necessary to advance work in this area. The next step in this line of research is to examine the effect of DTC advertising on people's attitudes toward, willingness to engage in, and overall knowledge cognitive-behavioral therapy (CBT) for the treatment of anxiety disorders.

As little has been done to examine the effects of marketing of psychotherapy treatments, all experimental stimuli for engaging consumer interest were developed based on general principles of advertising. A generally accepted model for advertising appeals posits that they are either primarily emotional or rational in nature (Laskey et al., 1995). Emotional appeals attempt to elicit a response in the consumer to generate interest in the product or service, while rational appeals seek to provide information about why the product or service is necessary or important. Most advertisements use a combination of these types of appeals (Albers-Mill & Stafford, 1999), and neither approach has been demonstrated to be unambiguously more effective than the other. In an analysis of commonalities among advertisements for services in the United Kingdom, Mortimer (2008) found that emotional appeals were generally more successful regardless of the type of service being advertised; on the contrary, a study on attitudes surrounding various advertisements across types of media indicated that rational appeals generated more positive responses overall (Stafford & Day, 1995). How these findings apply to advertisements of EBPIs remains to be seen.

Additionally, advertising research has distinguished between directive and non-directive messages. Directive messages encourage individuals to take specific action (e.g., "If you are

suffering, get help today"), whereas non-directive messages simply provide general information about available products. In their analysis of DTC marketing of pharmaceutical products, Tsai and Lancaster (2012) found that directive advertisements that mention product names related to specific medical conditions and encourage the consumer to seek these out from their doctors are the most effective form of raising awareness about a particular product. Less directive types of DTC advertisements have been rated as less appealing and can confuse the consumer (Sheehan, 2003). Conversely, Hadley (1953) examined trends in advertisements for products such as beer and cigarettes and noted that inferred or non-directive techniques are particularly effective in allowing the consumer to feel as though he/she is making a decision independently without being told what to purchase. Later research on consumer choice has corroborated the idea that for some goods and services, autonomy and freedom play an important role in motivating individual behavior (e.g., Ackerberg, 2003; Friedmann & Zimmer, 2013; Richins, 1995). However, this area of variability in advertising appeals has been relatively ignored with respect to treatment for health-related services, despite the importance of consumer motivations for seeking services (Coles & Coleman, 2010).

The means by which psychological treatments are marketed is especially important for greater dissemination and diffusion about EBPIs. The Internet offers a particularly adaptable and mass-market tool for this end. According to the United States Census (2013), 75% of individuals have Internet access, representing a monumental change from the 19% reported in 2003 (File & Ryan, 2014). Furthermore, evidence suggests the Internet is not only the primary source of information about health care needs, but it also greatly influences consumer knowledge and behavior. Murray and colleagues (2003) found that 85% of surveyed physicians reported that their patients have brought information from the Internet in during a visit. Web-based

advertisements have also been demonstrated to influence consumer behavior. Choi & Lee (2007), for example, found that study participants were receptive to the Web as a source of prescription drug information. When assessed in comparison to traditional media, study respondents rated information advertised via the Web as the most credible source of prescription drug information. This finding was significantly different from earlier studies that demonstrated that individuals found Web-based information as less credible than other various media sources (e.g., Huh, DeLorne, & Reid, 2004). As the world of advertising continues to grow and change towards a focus on internet-based resources, research concerning the effectiveness of utilizing these techniques to reach consumers of therapy services needs to be done in order to understand how to disseminate effectively knowledge and information about anxiety disorders and associated treatments. The current study explores the notion that the Internet can also aid in this process, reducing the burden on the consumer while providing a wealth of information at little to no cost.

Developing the Commercial Stimuli

The dominant model in marketing with respect to appeals distinguishes between rational and emotional content as a way to influence consumer behavior (Albers-Miller & Stafford, 1999). The current study emphasized different stimuli on this basis, constructing several forms of advertisement that fundamentally differ in terms of their appeal to either emotion or reason. To represent the rational appeal, a didactic explanation about the nature of anxiety disorders and associated treatment conveyed an assumed expert's knowledge about exposure therapy. For the emotional appeal, a first-person account was created in the style of an individual's testimonial response to the same type of therapy. The content of the marketing materials used for the study was derived from the empirically identified important components of marketing as outlined

above, including the primary features of the marketing mix as well as directive and non-directive messages (i.e., Becker, 2015; Johar & Sirgy, 1991; Porter & Golan, 2006). Each advertisement was presented in multiple modalities, in this case written text and video.

The two types of advertising appeals were constructed using the most frequently cited elements of marketing from traditional advertising research. Each message was designed to contain parallel information about the service itself (i.e., the product - CBT techniques for anxiety), the cost of services (i.e., price, such as insurance coverage, typical treatment duration, etc.), and where to receive those services (i.e., place, such as a website to locate treatment providers). In addition, the two types of appeals were designed to have easily distinguishable positioning statements to discriminate between the promotional aspects of each. The emotional appeal placed an emphasis on the individual consumer's experience with the service (i.e., a personal testimonial about how effective the service was at treating his/her anxiety), whereas the rational appeal presented factual information about the service based on findings from marketing research (e.g., Zeithaml, Bitner, & Gremler, 2012).

In addition, a second independent variable was included to vary the concluding message of the appeals. This variable was comprised of two levels (directive and non-directive), and was fully crossed with both appeal types (emotional and rational). Thus, eight different stimuli were developed: four distinct appeal types based on the two independent variables above (emotional-direct; emotional-indirect; rational-direct; and rational-indirect), each of which was depicted in one of two formats (text-based descriptions; videos that verbalize identical scripts). The tone of groups containing directive statements was such that active engagement with the service (CBT) is recommended. Accordingly, the tone of non-directive groups contained reference to facts,

opinions, or individual outcomes without emphasis on what the reader should do as a result. See Appendix B for the full commercial scripts.

Further, the emotional appeal was constructed to convey an individual perspective, emphasizing testimonial (i.e., anecdotal) information. It focused on factors seen commonly in DTC advertising of pharmaceutical products, such as highlighting individual subjective distress, a desire to "return to normal," and the nurturing component of therapy (as derived from content analysis of typical DTC advertisements for pharmaceutical products; Mortimer, 2008). Rational appeals were presented from the perspective of an expert, with a tone that is more general in nature and references information from a broader array of sources (e.g., treatment outcome literature). For the video format, the same nonspecific video was shown, and the script was varied to isolate the differences of the appeal type.

Present Study

The present study examined how potential consumers of mental health services respond to Internet-based marketing information about EBPIs. Since the general consensus from the literature is somewhat inconclusive, the current study aimed to provide a more nuanced approach to understanding consumer reactions to stylistically dichotomized advertisements. In an effort to provide greater clarity regarding how these factors influence effective DTC advertising for psychological treatments, the current study assessed participant reactions to examples of the two most commonly used advertising appeals through a realistic (albeit controlled analogue) online marketing campaign. Consolidating previous literature, this demands that marketing stimuli provide information about the types of issues commonly seen related to anxiety disorders, what types of treatments are available, and the best ways to go about seeking those services. The hypotheses examined were as follows:

1. When comparing emotional and informational/rational appeals, consumers will respond more favorably to messages emphasizing emotional appeals that contain first-hand accounts of EBPI descriptions (i.e., anecdotes or testimonials) than to informational/rational appeals.
    a. Consumers will attend to and rate more favorably emotional appeals that contain first-hand accounts of EBPI descriptions when the tone of the message is persuasive and directive.
    b. Consumers will be more likely to report intent on seeking or recommending services after viewing emotional appeals that contain first-hand accounts of EBPI descriptions when the tone of the message is persuasive and directive.
2. Consumers will be able to recall information about emotional appeals more effectively than informational appeals.

II. METHOD

Participants

Students enrolled in introductory level college psychology courses were given the opportunity to participate in the current study. Participants were enlisted via the online research credit website used by the psychology department for study recruitment. After completing a consent form and verifying their age, participants filled out demographic questions and completed the DASS-21 before being shown one of the eight random experimental stimuli: either a text or video advertisement with one of four types of appeal (emotional directive, emotional nondirective, rational directive, or rational nondirective). Of the initial respondents (N=1032), 931 fully completed the survey. Of those who completely finished, the data was evaluated for accuracy and validity, using the recall questions as a quality check. 325 respondents missed at least one of the recall questions and were removed from the final analysis to reduce the chance of confounding the results.

The final sample consisted of 606 students (mean age = 18.81, SD = 1.33) at time one, who were randomly assigned to conditions. The numbers of participants by condition were approximately equivalent between the video (N=289) and text (N=317) advertisements. The number of participants in each group was not significantly different: 80 (13.2%) Emotional Directive video; 72 (11.9%) Emotional Nondirective video; 67 (11.1%) Rational Directive video; 70 (11.6%) Rational Nondirective video; 74 (12.2%) Emotional Directive text; 88 (14.5%) Emotional Nondirective text; 81 (13.4%) Rational Directive text; and 74 (12.2%) Rational

Nondirective text. The sample was primarily female (68.5%) and Caucasian (82.3%). Sample characteristics are displayed in Table 1.

Measures

Anxiety ratings. All participants completed the 21-item Depression, Anxiety, and Stress Scale. The Depression, Anxiety, and Stress Scale (DASS-21) is a frequently used measure of depression and anxiety that contains three, 7-item scales measuring depression, anxiety, and stress (Antony et al., 1998; Lovibond & Lovibond, 1995). Scores for the DASS-21 are calculated by summing each respective scale and multiplying by two, with scores for each individual scale ranging from 0 to 42 and higher scores indicating greater perceived levels of depression, anxiety and stress. This measure utilizes cutoff scores to determine levels of severity of symptom distress (Antony et al., 1998). The anxiety subscale, the primary subscale of interest for the present study, has shown adequate reliability in previous studies (α_1 = .78 to .90). See Appendix C for the full measure. With regards to anxiety subscale scores, there were no significant differences between any groups in the study.

Advertisement Evaluation. The effectiveness of an advertisement is often measured in terms of consumer attitudes and opinions (MacKenzie, Lutz, & Belch, 1986), which are themselves demonstrable components of product or service adoption decisions (Rogers, 2003). A scale commonly used in marketing research to measure consumer attitudes was developed by Madden, Allen, and Twible (1988), and it assesses fourteen dimensions of emotional response on a 7-point Likert-type scale. This scale has a three-factor structure comprising positive affect, negative affect, and evaluation, and each subscale has been shown to have adequate reliability (α = .89, .75, .88, respectively; Madden, Allen, & Twible, 1988). Each of these subscales has been demonstrated to play a role in consumer responses to marketing materials; affective reactions

have been shown as a key indicator in previous research (Lutz, 1985; MacKenzie, Lutz, & Belch, 1986), as have content-based evaluations in traditional advertising (Brown & Stayman, 1992). Additionally, several meta-analyses have demonstrated the moderating effects of affective and cognitive reactions to consumers' responses to advertising reflected by this measure (Brown, Homer, & Inman, 1998; Muehling & McCann, 1993). Participants completed this scale immediately after viewing their respective marketing materials. See Appendix C for the full measure.

Intent to Try/Recommend. Given the importance of subjective experience and word-of-mouth referrals for the dissemination of experiential services like EBPIs, the current study also sought to ascertain how likely potential consumers are to engage in or to recommend the types of treatments being described. Spears and Singh (2004) developed a psychometrically sound measure to assess both attitude toward the brand (Ab) and purchase intention (PI) (Ab $\alpha = .94$ and PI $\alpha = .97$; Spears & Singh, 2004), based on theory that suggests attitudes formed in response to marketing materials motivate consumer behavior. This 10-item scale was given to participants immediately after exposure to the appeals, although some language of the original measure was modified to fit the context of the study (i.e., adding in specifiers about the type of treatment described—"Describe your overall feelings about CBT for anxiety treatment."). Respondents were also be asked to imagine that he/she is suffering from an anxiety disorder and then rate the likelihood that he/she would try the discussed treatment, as well as the likelihood of recommending CBT to a friend or loved one with anxious symptoms. See Appendix C for the full measure.

Recall. Three multiple-choice questions concerning the content of the advertisement (and created specifically for this study were used to assess participants' recall of the marketing stimuli

at the beginning of data collection, as well as at time two. The questions assessed common elements of each advertisement (e.g., "What mental health problem did the advertisement focus on?"), so participants were asked the same questions regardless of the group to which they were assigned. These questions served as a measure of how effectively participants attended to stimuli and served as the primary validity check for the study. In addition, during follow-up, participants were asked to indicate if they sought or recommended any of these types of services as a qualitative measure of behavior. See Appendix C for these measures.

Procedure

After the study received approval from the University's Institutional Review Board (IRB), participants were recruited via the psychology department's research website, SONA System. The entire study was completed through an online survey site (Qualtrics). Participants were assigned to one commercial condition (i.e., appeal type) via a randomizer. After obtaining informed consent, participants completed a demographic questionnaire and the DASS-21 prior to viewing the experimental materials. Immediately after viewing the commercial, participants completed all advertisement-related measures. Participants were given research credit for their participation after completing the measures at time one. Those interested in participating in the follow-up survey were given an opportunity to provide their email address to be contacted within two months of their original participation date. Consenting participants were contacted between six and eight weeks after their initial participation (due to a holiday break at the university, there was some variation in the time follow-up emails were sent out) with an email linking them to follow-up measures to be completed via an online questionnaire (administered through Qualtrics).

Once all data were refined, multiple analyses of variance (ANOVAs) were performed to investigate the main hypotheses in terms of group differences in dependent measures at time one. In the event of a significant F test, follow-up t tests were conducted to determine specific group discrepancies using Tukey's honestly significant difference (HSD). All of the outcome measures administered at data collection time one were examined separately, including: positive affective response, negative affective response, advertisement content evaluation, intent to try, intent to recommend, and recall. In addition, commercial conditions were analyzed for differences between both media type (video vs text) and appeal type (rational vs emotional, directive vs nondirective) using independent sample t tests. Finally, the data collected from those who responded to the one-month follow-up email were insufficient to determine which randomly assigned group displayed the greatest change over time, so analyses focus primarily on group differences at the initial viewing of commercial stimuli.

III. RESULTS

Data Screening

After data collection was complete, the information collected via electronic database was screened for errors and incomplete/missing information. From the total pool of responses (N=1032), surveys that were incomplete (Progress < 100%) were first excluded (n=101). Of those responses that remained (n=931), the three recall questions were evaluated as a validity check. Surveys that responded incorrectly to any one of those questions were removed (n=325), resulting in 606 completed surveys that were included in the final analysis.

The Effect of Commercial Condition on Recall

Analysis of recall questions revealed that the majority of participants measured at time one missed none of the questions assessing this construct. Therefore, recall was coded into a categorical variable into two groups: those who answered all of the questions correctly (N = 606) and those who missed one or more questions (N =325). Binary logistic regression was used to assess the impact of commercial condition on the likelihood that viewers would answer all of the questions correctly. The full model was not statistically significant (χ^2 (7, N = 931) = 7.656, p = .364), indicating that commercial condition did not predict viewers' ability to recall details of the commercial they viewed.

Group Differences

One-way analyses of variance (ANOVA) were performed to investigate group differences in dependent measures. The independent variable was commercial condition, which

consisted of eight different groups: Emotional Directive video, Emotional Nondirective video, Rational Directive video, Rational Nondirective video, Rational Nondirective text, Rational Directive text, Emotional Nondirective text, and Emotional Directive text advertisements. Each outcome measure administered to participants was entered into its own ANOVA as the dependent variable, including: Attitude toward Brand, Advertisement Evaluation, Intent to try CBT, and Intent to recommend CBT. These analyses were repeated with the anxiety subscale score from the DASS-21 entered as a covariate to determine if the individual respondent's level of symptomology had any statistical effect on outcome data. Table 2 contains means and standard deviations for DASS-21anxiety scores by group.

Attitude to Brand and Advertisement Evaluation

Attitude to brand and advertisement evaluation were calculated by summing individual items from the respective measures into one of three factors, positive affective response, negative affective response, and advertisement evaluation. A one-way ANOVA was computed for each of these three factors, with group membership as the factor: analyses of positive affective response ($F(7,582) = 1.67$, $p = .11$), negative affective response ($F(7,589) = .81$, $p = .58$), and advertisement evaluation $F(7,598) = .78$, $p = .61$) demonstrated no significant differences. See Table 3 for full results.

Intent to Try/Recommend CBT

An overall sum was tabulated from questions for respondents' intent to try CBT. Significant group differences were demonstrated using a one-way ANOVA ($F(7,598) = 2.50$, $p = .02$). A Tukey HSD post hoc test indicated that individuals in the Rational Directive video group

were significantly less likely than those in the Rational Directive text video group to indicate a strong intent to try CBT (p = .04, d = .20).

With respect to recommending CBT to others, respondent scores did not differ significantly among groups as calculated by a one-way ANOVA (F(7,598) = .54, p = .81) when analyzed using a summed total of scores related to these questions. See Table 4 for full results.

Comparing binary conditions

Independent sample t tests were conducted to compare commercial conditions using five separate dependent measures: positive affective response, negative affective response, advertisement evaluation, overall intent to try, and overall intent to recommend. These dependent measures were evaluated grouped by condition type: video versus text and emotional appeal versus rational appeal. When comparing dependent measures as a condition of video versus text advertisement group, no significant results were demonstrated on any measure.

When comparing dependent measures as a condition of emotional appeal versus rational appeal groups, a significant difference was found between emotional appeal advertisements and rational appeal advertisements on the positive affective response measure (t(588) = 2.33, p = .02, d = 0.19). Participants were significantly more likely to describe a positive affective response to Emotional appeal advertisements (M = 13.75, SD = 6.40) than Rational appeal advertisements (M = 12.55, SD = 5.96).

Independent sample t tests comparing directive versus nondirective approaches across dependent measures produced a similar finding: namely, that positive affective response was significantly different between directive versus nondirective conditions (t(588) = 2.05, p = .04, d = 0.17). Participants were significantly more likely to describe a positive affective response to

Directive appeal advertisements (M = 13.69, SD = 6.21) than Nondirective appeal advertisements (M = 12.65, SD = 6.19). See Table 5 for full results.

Anxiety as a covariate

The same one-way analyses of variance on all dependent measures were computed with anxiety entered in as a covariate. The independent variable was commercial condition, with outcome measures mentioned above entered as separate, unitary dependent variables, and the total anxiety subscale score from the DASS-21 was entered as a covariate to determine if the individual respondent's level of symptomology had any statistical effect on outcome data. There were no significant findings with respect to positive affective response (F(7,581) = 1.48, p = .17), negative affective response (F(7,588) = .72, p = .66), or total evaluation (F(7,597) = .77, p = .61). There was a statistically significant finding with respect to intent to try CBT (F(7,597) = 2.47, p = .02), but no significant difference with respect to intent to recommend CBT (F(7,597) = .54, p = .81). Follow-up Tukey's HSD post hoc tests demonstrated a significant difference between individuals in the Rational Directive video group versus those in the Rational Directive text video group with respect to intent to try CBT (p = .05).

In addition, analyses were conducted on respondents who indicated anxiety symptoms above a mild level on the DASS-21 (Anxiety subscale score > 5; n=167, 27.6% of the final sample). Individuals in these categories are significantly more likely to be impaired as a result of their symptoms, which may make advertisements about treatments potentially more salient. The same one-way ANCOVAs outlined above were computed with this sample, which yielded significant results on two measures: positive affective response (F(7,153) = 2.27, p = .03) and intent to try CBT (F(7,158) = 2.63, p = .01), but no other measures (negative affective response

($F(7,158) = .48$, $p = .85$); overall advertisement evaluation ($F(7,158) = .995$, $p = .44$); intent to recommend CBT ($F(7,158) = .596$, $p = .76$)).

Follow-up analyses using Tukey's HSD indicated several significant group differences. In terms of positive affective response, individuals in the Emotional Directive video group rated significantly higher than those in the Rational Directive video group ($p = .01$), as well as those in Rational Nondirective text group ($p = .01$). Individuals in the Emotional Nondirective text group rated positive affective response significantly higher than those in the Rational Directive video group ($p = .01$) and those in the Rational Nondirective text group ($p = .02$). Individuals in the Rational Directive text group were significantly higher than those in the Rational Nondirective text group ($p = .03$). In terms of intent to try CBT, individuals in the Rational Directive video group rated significantly lower than those in all other groups (compared to Rational Directive video group $p < .01$, Emotional Nondirective video group $p = .04$, Rational Nondirective video group $p = .01$, Emotional Directive text group $p < .01$, Emotional Nondirective text group $p < .01$, Rational Directive text group $p < .01$, and Rational Nondirective text group $p = .03$). See Table 6 for ANCOVA results.

Content analysis of respondents' comments

In the current study, three of every ten respondents (n=190; 31.4%) provided personal comments about the advertisements when completing study surveys. These comments were examined qualitatively and subjected to content analysis, which ultimately coded each into one of the following six overarching groups: 1) positive response to commercial; 2) critical evaluation of commercial quality/production value; 3) informative value of commercial; 4) desire for greater information after viewing commercial; 5) suggestions for improving the commercial; and 6) other/miscellaneous comments not fitting into a single category. These

categories were derived using evaluative criteria derived from qualitative research guidelines, especially methods of describing and explaining qualitative data (Miles, Huberman, & Saldana, 2014). Each comment was analyzed for categorical themes (e.g., adjectives used in descriptions) and then clustered via an iterative sorting process. After determining the broad categories of qualitative comments, each was coded into a primary category to provide frequency of thematic responses. The majority (n=108; 56.8% of comments) indicated a positive response or feeling about the commercial (e.g., "It was very interesting to read about this;" "The commercial was nice."), although a substantial percentage of respondents (n=37; 19.5% of comments) remarked on the low production quality of commercials (e.g., "It's a bit boring and the music is too somber," "The camera work was a little shaky," "It felt too descriptive," etc.). The next most common category of substantive comments (n=14; 2.3%) included responses that provided suggestions for improvement, such as, "I would have liked to see a convincing testimonial included," "A compare/contrast approach would be more successful," "…would be more interesting by giving shocking or interesting facts," etc. These comments provide important information from potential consumers about their expectations for and reactions to advertisements for which they are the target audience.

Using these qualitatively derived categories to describe comments, a multinomial logistic regression was used to assess the impact of commercial condition on whether individuals responded with a particular type of comment. The full model was not statistically significant (χ^2 (7, N = 191) = 30.76, p = .67), indicating that commercial condition did not predict whether respondents would leave a personal comment. See Table 7 for full results.

Follow-up survey data

Of those who completed the survey, 122 individuals indicated they would be interested in providing follow-up data, which was collected between 4 and 8 weeks after the initial viewing of the study. Of those, 22 (3.6% of the final sample) completed a follow-up survey which included questions about recall, intent to try, and intent to recommend, as well as questions designed to assess qualitative behavioral change about whether the individual sought or recommended CBT. Though the limited response rate limits the comparison with the larger sample, the majority (n=13; 59.1% of the follow-up sample) answered all recall questions correctly, and over a quarter (n=6; 27.3%) reported qualitative behavioral change—either endorsing that they researched more about CBT or recommended it to a friend or family member.

IV. DISCUSSION

Overall, there was no evidence to suggest that one particular appeal or media type was clearly superior to another in terms of overall response to an advertisement. While some statistically significant differences were demonstrated with respect to positive affective response and intent to try CBT, these differences did not suggest a general pattern of advertising that is most effective. Emotional, directive appeals may in some conditions be preferred for capturing consumers' attention or provoking a stronger response, but since no group differences were clear on the basis of various combinations of appeal and media type, significant generalizations cannot be made. What seems to be evident, though, is that some effort for direct-to-consumer advertising does seem to have an impact on consumer thought processes. For example, overall scores on all dependent measures approached their respective maximum values, suggesting that any type of advertising was likely to have a more positive effect than no advertising whatsoever. Without an actual control group to measure attitudes towards psychological treatments in the absence of advertisements, however, the magnitude of this effect is hard to gauge.

The hypothesis (H_{1a}) that participants would respond more favorably to the emotional appeals in terms of attitude, evaluation, and recall was only partially supported. Overall, the emotional appeal-focused commercials demonstrated significant differences when compared to their rational counterparts in terms of positive affective response, although the size of this effect was small. This finding suggests that stylistic considerations may weigh more heavily on individual's perceptions and evaluation than overall content, but the limited scope of this finding

and the overall pattern of positive response to advertisements in general suggest that no single approach to advertising can be classified as universally preferred.

The hypothesis (H_{1b}) that participants would be more likely to report intent to try or recommend based on appeal type was also partially supported by the results of the current study. An overall significant difference among groups was demonstrated when participants were asked to rate their intent to try CBT, although the effect size was small. Isolating specific appeal types (e.g., directive versus nondirective, emotional versus rational) did not indicate a clearly superior approach to advertising, even though certain combinations of these advertising strategies were statistically more likely to generate positive endorsement from participants. Individuals in the rational directive text group were more likely to report overall intent to try CBT than those in the corresponding rational directive video group. These differences were not observed between other groups, however, or when participants were asked their likelihood in recommending CBT as a treatment to others. Thus, there was no evidence to suggest a specific appeal or media type was more effective to this end.

The hypothesis (H_2) predicting that participants would recall information more effectively in emotional appeal conditions also lacked support in the current study. No evidence was found to demonstrate that any condition had an impact on overall recall. The overall number of participants who answered recall questions incorrectly (n=325, or 35% of those who completed the initial survey) suggests a high rate of error; however, when compared to previous studies on Internet-based advertising, these results are not surprising (e.g., Couper, 2000; Evans & Mathur, 2005; Hewson & Stewart, 2016). In addition, given the error rates were not statistically different among groups in the present study, it is likely that recall inaccuracies were

due more to the inherent nature of online survey research rather than some inherent quality of the advertising approach used.

Overall, however, the results from the study suggest that efforts to increase direct-to-consumer advertising of psychological treatments in a general sense may have positive effects on individuals' knowledge and interest in these services. The overall pattern of responses from all groups indicated high scores on measures assessing attitude toward brand, likelihood to try, etc. Although differences among group scores were somewhat limited, there were differences among the various groups when considering only individuals who reported a moderate or higher level of anxiety symptoms. The somewhat confusing pattern of differences make categorical conclusions difficult, but these results suggest that those with more significant anxiety symptoms displayed more significant differences terms of their response to advertising stimuli. Additional efforts to increase consumer awareness about psychological treatments may be a useful approach for the future of disseminating information about evidence-based interventions, especially to those most in need of treatment.

While additional research investigating the relative advantages of various appeal and media types is still needed, these preliminary results suggest the importance of developing direct-to-consumer advertisements for psychotherapeutic services. Future efforts may focus on refining techniques to improve these consumer-based approaches. Specifically, individuals who experience psychological symptoms may be more responsive to advertisements involving appropriate treatments, a contention with at least some preliminary support given the results of the current study.

The qualitative responses from participants also provided insight into the role direct-to-consumer advertising may play in future efforts. The most common type of feedback involved

positive responses to the advertisement in general, suggesting that the subject matter of advertising psychological treatment is novel. These included specific comments, such as: "Thought it was a very nice informative commercial for a good cause/treatment option that everyone should know about," "The commercial was eye opening to alternative treatment instead of taking medicine for anxiety," "I've never heard of CBT! Great way to get information out there." The second most frequently identified type of comment related to the quality of advertisements themselves. Participants noted the lack of aesthetic value of both video and text advertisements, such as how elements of the video or text advertisements grabbed their attention (e.g, "The advertisement could have more artistic flare to keep the watcher more engaged," "Boring to read if you have absolutely no interest in the subject," "Pictures/videos would have evoked more emotion," "I felt the video was not engaging enough," etc.). These types of comments are useful in the development of more effective advertisements, and they suggest that stylistic considerations are an important component for individual consumers of a product. The third most frequent category of response involved suggestions for improving advertising efforts, something that is commonly practiced in other domains of marketing. These types of comments (e.g., "Could have been more motivating or targeted why it's good to help," "What are some of the skills they do in therapy that can help an anxious person?", "A student actually going through with therapy, allowing the audience to have a visual idea of how therapy would go?") provide useful insight about the type of information consumers expect from advertisements for these types of services. Taken together, the comments provided by respondents corroborate the fundamental rationale for the current study—i.e., direct-to-consumer marketing for psychological treatments is a useful area for research efforts—and provide suggestions for future revision of efforts in this domain.

Finally, the results of the present study suggest that the barriers to implementation of effective direct-to-consumer advertising are more complex than finding one ideal mode of presenting information to potential consumers. Media format, advertisement tone, stylistic considerations, and appeal type influence different individuals in different ways, and no clear pattern clearly emerged in terms of preferential advertising. However, the present study is useful insofar as it begins to identify certain trends in consumer preferences with respect to advertising psychological treatments. Study participants tended to have slightly more positive emotional responses to advertisements in certain formats, which may be due to the nature of the media or appeal type itself. Additionally, the data suggest that individual characteristics—especially the respondent's subjective report of anxiety symptoms—may also play a role in this evaluation. At the broadest level, no clearly preferred method of presenting information to potential consumers was evident. For example, an advertisement displaying people in various situations with accompanying music may make for a more pleasing aesthetic experience than reading the same information in text format. However, in the present study, some who saw advertisements in text format were more likely to state they would try the treatment themselves, which may suggest that some consumers prefer reading information in greater detail to generate personal interest in an advertised product more successfully. The lack of any specific variable that impacts recall of information in advertisements, however, makes categorical prescription of advertising strategies difficult, but this finding is consistent with research in other areas (e.g., Goodrich, 2011).

The current study also fills an important need in current research by examining an area that has been generally neglected by rigorous study in psychological science. While extensive research on consumer preferences, attitudes, and behavior has been conducted around a variety of products and services, psychological treatments have previously been largely ignored as a

subject of advertising strategies (Gallo, Comer, & Barlow, 2013). This initial effort to elucidate approaches that are most effective for advertising psychological treatment is important for future research. Given the differential effects of attitudes and evaluation of advertisements on consumer behavior, it is critical to understand which methods may have the greatest impact in developing dissemination strategies of evidence-based psychological treatments (Santucci, McHugh, & Barlow, 2012). If consumers are informed and knowledgeable about a range of treatment options, they can be transformative in the ways mental health services are delivered. Addressing the "treatment gap" or "unmet need" of possible mental health consumers that has been identified (e.g., Demyttenaere et al., 2004; Kohn, Saxena, Levav, & Caraceno, 2004) may be a critical step in improving overall dissemination of EBPIs. Prevailing understanding about the adoption rate of diffusions indicates that impacting the way innovations are adopted and methods implemented produces overall social system change (Rogers, 2003). Given the near-absent efforts to impact these systems from a "bottom up" approach by directly targeting consumers, the results from the current study suggest a different tactic may be useful.

The current study also provides an initial framework for future research that may evaluate the best way to target specific demographics, such as those most likely to be interested in and benefit from mental health treatment services. As demonstrated, individuals who experience more anxiety symptoms than the general population were more like to respond positively to various advertisements and to report that they would interested in trying CBT for their symptoms. As demonstrated in other marketing campaigns, directly appealing to consumer experience is a useful tact for generating interest in and demand for a particular product. The high level of responsiveness to the advertisements, as well as specific qualitative comments from respondents, suggests that individuals are interested in receiving information about products and

services that are often targeted to professional or academic settings. That the overwhelming focus of dissemination research has been on addressing the research-practice gap belies the importance of consumer attitudes towards EBPIs. As seen in the successful approaches used in other fields (e.g., the pharmaceutical industry), the efforts to improve marketing efforts from both a provider and consumer standpoint are critical for future endeavors in dissemination research.

Limitations

There were several limitations with the current study that could be improved with future efforts in this area. Most significantly, the lack of substantial follow-up data limits the conclusions that can be drawn about how advertising psychological treatments may impact long-term consumer behavior. This limitation also inherently restricted the generalizability of the effects demonstrated, since individual responses in a laboratory-based setting do not always translate to substantive behavior change in more naturalistic environments. Additionally, the current study lacked the resources typically used in marketing campaigns, thus creating an imprecise representation of the types of advertisements generally seen by individuals in daily life. The experimental stimuli were necessarily analogues for their real-world counterparts, and how factors such as well resourced, professionally produced advertisements about psychological treatments impact consumer attitudes remains to be seen. However, given the generally positive responses to all commercials despite the lack of resources involved in their creation, the suggestions from study participants are encouraging for future endeavors in developing more sophisticated efforts to target directly consumers of mental health services. In fact, that a considerable portion of respondents indicated concerns about the quality of the commercial stimuli, but were still (overall) endorsing high levels of response, suggests the importance of

further study in this area. More sophisticated advertisements may wish to incorporate higher production values, more narrowly targeted information, or greater specificity with respect to certain appeal types. For example, given the frequency of comments about personal testimonials by study respondents, additional research efforts may wish to compare professionally produced videos with more personal, homemade versions (e.g., YouTube video-style testimonials) to ascertain differences in consumer responses to these various approaches.

The current study may have also benefited from measures specifically developed to gauge consumer attitudes about psychological treatments; many other areas of marketing have domain- or product-specific approaches to evaluate how their products are received by potential consumers, but the lack of those types of measures in this area meant that existing tools had to be adapted. A possible shortcoming of this approach is that it may necessarily fail to capture the types of attitudes and beliefs that compel individuals to act with respect to seeking mental health services, something that has been influenced by a variety of factors according to previous research (e.g., Becker, 2015). Thus, the ceiling effects noted in the current study for many of the dependent variables may not be directly predictive of actual in vivo behavior. In the context of the current study, there were no measures that could be used to further refine data collection, but future research efforts may wish to develop the types of tools necessary to differentiate more nuanced attitudes potential consumers have about EBPIs. Similarly, appropriate measures that can more accurately discriminate among consumer attitudes would be useful tools for further research in this area.

Finally, the current study relied on data from college undergraduates, a sample that is demographically different than the greater population that may be interested in mental health treatment. It is possible that individuals with different levels of education, access to internet

services, and exposure to mental health concepts may respond differently to the same stimuli. In order to draw more general conclusions about the impact of advertising techniques, a more robust and diverse sample may provide key insight into developing the most effective direct-to-consumer advertisements of psychological treatments. Although the population studied is already among the most likely to seek psychological services, efforts have identified the importance of specifically targeting certain demographics in terms of providing information about services to increase utilization of treatment options, and other studies have demonstrated the effectiveness of providing college students with information about mental health services in terms of increasing utilization (e.g., Yorgason, Linville, & Zitzman, 2010; Hunt & Eisenberg, 2010).

Future Research

The limited research base in this area of direct-to-consumer marketing provides a wide range of future possibilities for additional research. Additional manipulation of variables (e.g., different types of audio and visual cues, embedding advertisements in naturalistic contexts, etc.) could provide greater insight into the impact this type of marketing has on consumer attitudes and behaviors. Approaching the question from a marketing perspective also requires a substantial evaluation of costs and benefits of advertising strategies in order to ascertain the balance between investment in marketing and the payoff for providers of a service. These types of cost-benefit analyses are necessarily beyond the scope of the current study, but they form a crucial component of most advertising efforts. Expanding on the type of information conveyed, including identifying which specific cues potential consumers respond to, which demographics are most suitable for DTC efforts, and what other types of psychological symptoms predispose individuals to be receptive to advertisements, would be an ideal next step in this area of research. Developing studies in any of these areas of inquiry may improve understanding of the complex

relationship between advertising strategies and consumer response in order to better understand the real-world implications of dissemination efforts.

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LIST OF APPENDICES

APPENDIX A: STATISTIC TABLES

Table 1. Sample Characteristics

			Total N = 606	
Age			M = 18.81, SD = 1.33	
Gender				
Female			415	(68.5%)
Male			190	(31.4%)
Other			1	(0.2%)
Ethnicity				
White			499	(82.3%)
Black or African American			65	(10.7%)
Hispanic or Latino			9	(1.5%)
Asian			19	(3.1%)
Other			14	(2.3%)
Class Standing				
Freshman			439	(72.4%)
Sophomore			93	(15.3%)
Junior			41	(6.8%)
Senior			33	(5.4%)
Commercial Conditions	Video Advertisement		Text Advertisement	
Emotional Directive	80	(13.2%)	74	(12.2%)
Emotional Nondirective	72	(11.9%)	88	(14.5%)
Rational Directive	67	(11.1%)	81	(13.4%)
Rational Nondirective	70	(11.6%)	74	(12.2%)

Table 2

Means and Standard Deviations of Anxiety Scores on the DASS-21

Condition	*n*	M	SD
Emotional Directive Video	80	3.93	3.92
Emotional Nondirective Video	72	4.03	3.84
Rational Directive Video	67	3.69	3.60
Rational Nondirective Video	70	3.04	3.56
Emotional Directive Text	74	4.68	4.66
Emotional Nondirective Text	88	2.84	3.21
Rational Directive Text	81	3.33	3.67
Rational Nondirective Text	74	3.50	3.48

Note: N= 606; higher scores indicate higher anxiety symptoms

Table 3.1

Means and Standard Deviations on Attitude Toward Brand and Advertisement Evaluation

Positive Affective Response

Condition	*n*	M	SD
Emotional Directive Video	77	14.44	6.67
Emotional Nondirective Video	71	13.17	5.62
Rational Directive Video	67	12.75	5.52
Rational Nondirective Video	66	12.48	6.12
Emotional Directive Text	73	14.04	5.85
Emotional Nondirective Text	86	13.35	7.19
Rational Directive Text	80	13.45	6.60
Rational Nondirective Text	70	11.41	5.36

Note: N= 590; higher scores indicate more positive affective response

Negative Affective Response

Condition	*n*	M	SD
Emotional Directive Video	79	4.35	2.46
Emotional Nondirective Video	72	4.35	2.56
Rational Directive Video	66	4.73	2.76
Rational Nondirective Video	69	4.54	2.56
Emotional Directive Text	73	4.53	2.39
Emotional Nondirective Text	86	4.02	2.35
Rational Directive Text	80	4.05	1.94
Rational Nondirective Text	72	4.53	2.21

Note: N= 597; higher scores indicate more negative affective response

Advertisement Evaluation

Condition	*n*	M	SD
Emotional Directive Video	80	25.88	7.98
Emotional Nondirective Video	72	24.54	6.88
Rational Directive Video	67	26.10	7.98
Rational Nondirective Video	70	26.52	6.66
Emotional Directive Text	74	26.58	5.94
Emotional Nondirective Text	88	25.22	7.94
Rational Directive Text	81	25.10	6.55
Rational Nondirective Text	74	25.18	7.49

Note: N= 606; higher scores indicate more positive evaluation

Table 3.2

One-Way Analyses of Variance of Attitude Toward Brand and Advertisement Evaluation

Positive Affective Response

Source	Sum of Squares	df	Mean Square	F	*p*
Between Groups	447.69	7	63.60	1.67	.11
Within Groups	22313.33	582	38.34		
Total	22761.02	589			

Negative Affective Response

Source	Sum of Squares	df	Mean Square	F	*p*
Between Groups	32.68	7	4.67	.81	.58
Within Groups	3402.51	589	5.78		
Total	3435.20	596			

Advertisement Evaluation

Source	Sum of Squares	df	Mean Square	F	*p*
Between Groups	280.98	7	40.14	.77	.61
Within Groups	31239.73	598	52.24		

Total	31520.71	605	

Table 4.1

Means and Standard Deviations on Intent to Try and Intent to Recommend

Intent to Try CBT

Condition	*n*	M	SD
Emotional Directive Video	80	23.10	7.95
Emotional Nondirective Video	72	20.97	6.86
Rational Directive Video*	67	19.82	8.10
Rational Nondirective Video	70	22.80	7.88
Emotional Directive Text	74	23.71	7.25
Emotional Nondirective Text	88	21.69	8.77
Rational Directive Text*	81	23.83	6.97
Rational Nondirective Text	74	21.26	7.83

Note: N= 606; higher scores indicate higher likelihood to try; *$p < 0.05$

Intent to Recommend CBT

Condition	*n*	M	SD
Emotional Directive Video	80	24.99	7.49
Emotional Nondirective Video	72	23.38	6.95
Rational Directive Video	67	23.72	8.19
Rational Nondirective Video	70	24.49	8.03
Emotional Directive Text	74	24.51	6.81
Emotional Nondirective Text	88	24.40	8.31
Rational Directive Text	81	25.37	6.58
Rational Nondirective Text	74	24.27	7.74

Note: N= 606; higher scores indicate higher likelihood to recommend

Table 4.2

One-Way Analyses of Variance of Intent to Try and Recommend CBT

Intent to Try CBT

Source	Sum of Squares	df	Mean Square	F	*p*
Between Groups	1050.76	7	150.11	2.50	.02*
Within Groups	35849.65	598	59.95		
Total	36900.41	605			

Intent to Recommend CBT

Source	Sum of Squares	df	Mean Square	F	*p*
Between Groups	213.37	7	30.48	.54	.81
Within Groups	33948.01	598	56.77		
Total	34161.38	605			

Table 5.1

Means and Standard Deviations of Conditions by Appeal and Media Type

Condition	Positive Affect M(SD)	Negative Affect M(SD)	Advertisement Evaluation M(SD)	Intent to Try M(SD)	Intent to Recommend M(SD)
Video	13.26 (6.03)	4.48 (2.57)	25.75 (7.41)	21.74 (7.79)	24.17 (7.65)
Text	13.10 (6.39)	4.27 (2.23)	25.50 (7.05)	22.61 (7.82)	24.64 (7.40)
Emotional	13.75 (6.40)*	4.30 (2.43)	25.55 (7.29)	22.36 (7.84)	24.34 (7.44)
Rational	12.55 (5.96)*	4.44 (2.37)	25.69 (7.16)	22.01 (7.79)	24.50 (7.60)
Directive	13.69 (6.21)*	4.40 (2.39)	25.89 (7.14)	22.72 (7.69)	24.69 (7.25)
Nondirective	12.65 (6.19)*	4.34 (2.41)	25.35 (7.30)	21.67 (7.90)	24.14 (7.77)

*$p < .05$

Table 5.2

Independent Samples t Tests of Conditions by Appeal and Media Type

Video vs. Text

Measure	F	Sig.	t	df	Sig. (two-tailed)
Positive affect	.07	.79	.30	588	.76
Negative affect	5.39	.02	1.09	595	.27
Evaluation	1.94	.16	.44	604	.66
Intent to Try	.01	.91	-1.37	604	.17
Intent to Recommend	.32	.57	-.77	604	.44

Emotional vs. Rational Appeal

Measure	F	Sig.	t	df	Sig. (two-tailed)
Positive affect	1.75	.19	2.33	588	.02*
Negative affect	.40	.53	-.71	595	.48
Evaluation	.10	.75	-.23	604	.82
Intent to Try	.01	.94	.56	604	.58
Intent to Recommend	.08	.78	-.26	604	.80

*$p < .05$

Directive vs. Nondirective Appeal

Measure	F	Sig.	t	df	Sig. (two-tailed)
Positive affect	.05	.82	2.05	588	.04*
Negative affect	.06	.81	.30	595	.77
Evaluation	.19	.67	.92	604	.36
Intent to Try	.21	.65	1.65	604	.10
Intent to Recommend	.97	.33	.90	604	.37

*$p < .05$

Table 6.1

Adjusted Means and Standard Deviations on Dependent Measures with Total DASS-21 Anxiety Score as a Covariate

Positive Affective Response

Condition	*n*	M	SE
Emotional Directive Video	77	14.34	.70
Emotional Nondirective Video	71	13.10	.73
Rational Directive Video	67	12.73	.75
Rational Nondirective Video	66	12.62	.76
Emotional Directive Text	73	13.78	.72
Emotional Nondirective Text	86	13.54	.66
Rational Directive Text	80	13.51	.69
Rational Nondirective Text	70	11.47	.73

Note: N= 590; higher scores indicate more positive affective response

Negative Affective Response

Condition	*n*	M	SE
Emotional Directive Video	79	4.33	.27
Emotional Nondirective Video	72	4.32	.28
Rational Directive Video	66	4.72	.30
Rational Nondirective Video	69	4.57	.29
Emotional Directive Text	73	4.47	.28
Emotional Nondirective Text	86	4.07	.26
Rational Directive Text	80	4.07	.27
Rational Nondirective Text	72	4.53	.28

Note: N= 597; higher scores indicate more negative affective response

Advertisement Evaluation

Condition	*n*	M	SE
Emotional Directive Video	80	25.88	.81
Emotional Nondirective Video	72	24.55	.85
Rational Directive Video	67	26.11	.88
Rational Nondirective Video	70	26.52	.87
Emotional Directive Text	74	26.60	.85
Emotional Nondirective Text	88	25.22	.77
Rational Directive Text	81	25.10	.80
Rational Nondirective Text	74	25.17	.84

Note: N= 606; higher scores indicate more positive evaluation

Intent to Try CBT

Condition	*n*	M	SE
Emotional Directive Video	80	23.06	.87
Emotional Nondirective Video	72	20.92	.91
Rational Directive Video*	67	19.81	.95
Rational Nondirective Video	70	22.87	.93
Emotional Directive Text	74	23.60	.90
Emotional Nondirective Text	88	21.78	.83
Rational Directive Text*	81	23.86	.86
Rational Nondirective Text	74	21.27	.90

Note: N= 606; higher scores indicate higher likelihood to try; *$p < 0.05$

Intent to Recommend CBT

Condition	*n*	M	SE
Emotional Directive Video	80	24.99	.84
Emotional Nondirective Video	72	23.37	.89
Rational Directive Video	67	23.72	.92
Rational Nondirective Video	70	24.49	.90
Emotional Directive Text	74	24.51	.88
Emotional Nondirective Text	88	24.40	.81
Rational Directive Text	81	25.37	.84
Rational Nondirective Text	74	24.27	.88

Note: N= 606; higher scores indicate higher likelihood to recommend

Table 6.2

One-Way Analyses of Variance on Dependent Measures with Total DASS-21 Anxiety Score as a Covariate

Positive Affective Response

Source	Sum of Squares	df	Mean Square	F	Partial Eta Squared
Anxiety Score	524.87	1	524.87	13.40	.02
Group	388.30	7	55.47	1.48	.02
Error	21788.46	581	37.50		

Negative Affective Response

Source	Sum of Squares	df	Mean Square	F	Partial Eta Squared
Anxiety Score	36.39	1	36.39	6.36	.01
Group	28.65	7	4.09	.72	.01
Error	3366.12	588	5.73		

Advertisement Evaluation

Source	Sum of Squares	df	Mean Square	F	Partial Eta Squared
Anxiety Score	1.44	1	1.44	.03	.00
Group	282.10	7	40.30	.77	.01
Error	31238.29	597	52.33		

Intent to Try CBT

Source	Sum of Squares	df	Mean Square	F	Partial Eta Squared
Anxiety Score	114.40	1	114.40	1.91	.00
Group	1035.54	7	147.93	2.47*	.03
Error	35735.26	597	59.86		

*$p < .05$

Intent to Recommend CBT

Source	Sum of Squares	df	Mean Square	F	Partial Eta Squared
Anxiety Score	.13	1	.13	.00	.00
Group	213.49	7	30.50	.54	.01
Error	33947.88	597	56.86		

Table 6.3

Adjusted Means and Standard Deviations on Dependent Measures with Moderate-or-Greater Anxiety Symptoms (DASS-21 Anxiety Score >5) as a Covariate

Positive Affective Response

Condition	*n*	M	SE
Emotional Directive Video	20	16.37	1.36
Emotional Nondirective Video	19	13.28	1.39
Rational Directive Video	19	10.92	1.39
Rational Nondirective Video	17	14.51	1.47
Emotional Directive Text	28	14.35	1.15
Emotional Nondirective Text	19	16.13	1.39
Rational Directive Text	21	15.62	1.32
Rational Nondirective Text	19	11.37	1.39

Note: N= 162; higher scores indicate more positive affective response

Negative Affective Response

Condition	*n*	M	SE
Emotional Directive Video	20	4.88	.66
Emotional Nondirective Video	20	4.37	.65
Rational Directive Video	19	4.81	.67
Rational Nondirective Video	18	5.60	.69
Emotional Directive Text	29	4.93	.54
Emotional Nondirective Text	19	5.22	.67
Rational Directive Text	21	4.64	.64
Rational Nondirective Text	21	5.33	.64

Note: N= 167; higher scores indicate more negative affective response

Advertisement Evaluation

Condition	*n*	M	SE
Emotional Directive Video	20	26.10	1.71
Emotional Nondirective Video	20	24.48	1.71
Rational Directive Video	19	23.63	1.75
Rational Nondirective Video	18	26.86	1.80
Emotional Directive Text	29	27.15	1.42
Emotional Nondirective Text	19	27.08	1.76
Rational Directive Text	21	25.47	1.66
Rational Nondirective Text	21	22.82	1.67

Note: N= 167; higher scores indicate more positive evaluation

Intent to Try CBT

Condition	*n*	M	SE
Emotional Directive Video	20	23.54	1.67
Emotional Nondirective Video	20	21.14	1.66
Rational Directive Video	19	16.18	1.70
Rational Nondirective Video	18	22.49	1.75
Emotional Directive Text	29	23.87	1.39
Emotional Nondirective Text	19	23.27	1.71
Rational Directive Text	21	24.92	1.62
Rational Nondirective Text	21	21.30	1.62

Note: N= 167; higher scores indicate higher likelihood to try

Intent to Recommend CBT

Condition	*n*	M	SE
Emotional Directive Video	20	24.35	1.77
Emotional Nondirective Video	20	23.16	1.76
Rational Directive Video	19	21.11	1.81
Rational Nondirective Video	18	23.07	1.86
Emotional Directive Text	29	23.43	1.47
Emotional Nondirective Text	19	24.81	1.81
Rational Directive Text	21	25.67	1.72
Rational Nondirective Text	21	24.03	1.72

Note: N= 167; higher scores indicate higher likelihood to recommend

Table 6.4

One-Way Analyses of Variance on Dependent Measures with Moderate-or-Greater Anxiety Symptoms (DASS-21 Anxiety Score > 5) as a Covariate

Positive Affective Response

Source	Sum of Squares	df	Mean Square	F	Partial Eta Squared
Anxiety Score	225.75	1	225.75	6.20	.04
Group	577.36	7	82.48	2.27*	.09
Error	5572.38	153	36.42		

*$p < .05$

Negative Affective Response

Source	Sum of Squares	df	Mean Square	F	Partial Eta Squared
Anxiety Score	6.81	1	6.81	6.36	.01
Group	28.31	7	4.04	.72	.01
Error	1337.48	158	8.47		

Advertisement Evaluation

Source	Sum of Squares	df	Mean Square	F	Partial Eta Squared
Anxiety Score	34.18	1	34.18	.59	.00
Group	404.17	7	57.74	1.00	.04
Error	9168.43	158	58.03		

Intent to Try CBT

Source	Sum of Squares	df	Mean Square	F	Partial Eta Squared
Anxiety Score	659.56	1	659.56	11.99	.07
Group	1011.04	7	144.34	2.63*	.10
Error	8693.63	158	55.02		

*$p < .05$

Intent to Recommend CBT

Source	Sum of Squares	df	Mean Square	F	Partial Eta Squared
Anxiety Score	.13	1	.13	.00	.00
Group	213.49	7	30.50	.54	.01
Error	33947.88	597			

Table 7

Frequencies of Qualitative Comments by Category

Category	*n*	% Comments	% Total
Positive Response to Commercial	108	56.8	17.8
Critical Evaluation of Commercial Quality/Production Value	37	19.5	6.1
Informative Value of Commercial	9	4.7	1.5
Desire for Greater Information after Viewing Commercial	7	3.7	1.2
Suggestions for Improving the Commercial	14	7.4	2.3
Other/Miscellaneous*	15	7.9	2.5

*This category included comments such as "I have no comments or feedback," "I don't have any," etc.

APPENDIX B: COMMERCIAL SCRIPTS

Appendix B

Rational, non-directive

Anxiety disorders are among the most common problems people face today. Anxiety can involve feelings of worry, fear, and nervousness, as well as physical symptoms like muscle tension, accelerated heartrate, and shortness of breath. For some people, these symptoms become so frequent or severe that it can significantly impact the quality of their lives. Anxiety disorders can cause individuals to have trouble with focus, concentration, and attention, as well as difficulty with sleep, going certain places, or doing certain things.

Fortunately, there are treatment options that have been demonstrated to help lessen the effects of anxiety. One of the most well-established treatments does not require any type of medication—it's called Cognitive-Behavioral Therapy (CBT). CBT is an approach which encourages the individual to look at the connection between their thoughts and their feelings, and how these factors influence how they live their lives. For example, someone who is suffering from an anxiety disorder may have very worried thoughts about going into a public place, and even thinking about leaving the house may result in feelings of fear, physical stress, and panic, which impacts their quality of life.

A mental health professional trained in CBT may be able to help reduce these problems. A cognitive-behavioral therapist can assist in developing new coping skills, gaining greater insight into a person's difficulties, and providing solutions to problems that may seem overwhelming. Cognitive-behavioral therapy is usually a short-term treatment, often between 6 and 20 sessions, that focuses on specific skills and issues, and for most insurance plans offer some coverage for this treatment. More information about Cognitive-Behavioral Therapy is available online at http://www.abct.org/Information

Rational, directive appeal

Anxiety disorders are among the most common problems people face today. Anxiety can involve feelings of worry, fear, and nervousness, as well as physical symptoms like muscle tension, accelerated heartrate, and shortness of breath. For some people, these symptoms become so frequent or severe that it can significantly impact the quality of their lives. Anxiety disorders can cause individuals to have trouble with focus, concentration, and attention, as well as difficulty with sleep, going certain places, or doing certain things. If you or someone you know experience these symptoms, it may be time to seek help.

Fortunately, there are treatment options that have been demonstrated to help lessen the effects of anxiety. One of the most well-established treatments does not require any type of medication—it's called Cognitive-Behavioral Therapy (CBT). CBT is an approach which encourages the individual to look at the connection between their thoughts and their feelings, and how these factors influence how they live their lives. For example, someone who is suffering from an anxiety disorder may have very worried thoughts about going into a public place, and even thinking about leaving the house may result in feelings of fear, physical stress, and panic, which impacts their quality of life.

Don't wait if you are experiencing problems like these. A mental health professional trained in CBT may be able to help reduce these problems. A cognitive-behavioral therapist can assist in developing new coping skills, gaining greater insight into a person's difficulties, and providing solutions to problems that may seem overwhelming. Cognitive-behavioral therapy is usually a short-term treatment, often between 6 and 20 sessions, that focuses on specific skills and issues. You can even find a provider on your insurance plan today. To get more information about Cognitive-Behavioral Therapy, visit http://www.abct.org/Information

Emotional, non-directive appeal

Everyone gets nervous or worried from time to time, but sometimes those feelings can be overwhelming. I know—I have an anxiety disorder. Anxiety disorders are one of the most common problems people face today, and they involve feelings of worry, fear, and nervousness, as well as physical symptoms like muscle tension, accelerated heartrate, and shortness of breath. For me, these symptoms became so frequent and severe that it ruined my quality of life. My anxiety interrupted my focus, concentration, and attention, and I had difficulty with sleep, going certain places, and doing certain things.

Fortunately, there is relief. I came upon one of the most well-established treatments that does not require any type of medication—it's called Cognitive-Behavioral Therapy (CBT). CBT is an approach which encourages the individual to look at the connection between their thoughts and their feelings, and how these factors influence how they live their lives. For example, I had very worried thoughts about going into a public place, and just thinking about leaving the house made me stressed, fearful, and panicky, which prevented me from living the life I wanted.

I sought out a trained mental health professional knowledgeable in CBT. My cognitive-behavioral therapist helped me develop new coping skills, gain greater insight into my difficulties, and suggested solutions to my problems that seemed overwhelming. I appreciated that cognitive-behavioral therapy was a short-term treatment (typically between 6 and 20 sessions) and that we focused on specific skills and issues. Even better, most of the costs were covered by my insurance plan! I am so glad for the relief I found, and all it took was a visit to http://www.abct.org/Information

Emotional, directive appeal

Everyone gets nervous or worried from time to time, but sometimes those feelings can be overwhelming. I know—I have an anxiety disorder. Anxiety disorders are one of the most common problems people face today, and they involve feelings of worry, fear, and nervousness, as well as physical symptoms like muscle tension, accelerated heartrate, and shortness of breath. For me, these symptoms became so frequent and severe that it ruined my quality of life. My anxiety interrupted my focus, concentration, and attention, and I had difficulty with sleep, going certain places, and doing certain things. If you or someone you know has been feeling this way, it may be time to seek help.

Fortunately, there is relief. I came upon one of the most well-established treatments that does not require any type of medication—it's called Cognitive-Behavioral Therapy (CBT). CBT is an

approach which encourages the individual to look at the connection between their thoughts and their feelings, and how these factors influence how they live their lives. For example, I had very worried thoughts about going into a public place, and just thinking about leaving the house made me stressed, fearful, and panicky, which prevented me from living the life I wanted. I decided to do something about it.

Don't wait if you are experiencing problems like these. I sought out a trained mental health professional knowledgeable in CBT. My cognitive-behavioral therapist helped me develop new coping skills, gain greater insight into my difficulties, and suggested solutions to my problems that seemed overwhelming. I appreciated that cognitive-behavioral therapy was a short-term treatment (typically between 6 and 20 sessions) and that we focused on specific skills and issues. Even better, most of the costs were covered by my insurance plan! I am so glad for the relief I found, and if you or someone you know needs help, don't wait. You can find more information at http://www.abct.org/Information

APPENDIX C: MEASURES

C1. Advertising evaluation (Madden, Allen, & Twible, 1998)

Did this commercial make you feel…

Insulted?

not at all very much so

1 2 3 4 5 6 7

Good?

not at all very much so

1 2 3 4 5 6 7

Cheerful?

not at all very much so

1 2 3 4 5 6 7

Irritated?

not at all very much so

1 2 3 4 5 6 7

Pleased?

not at all very much so

1 2 3 4 5 6 7

Repulsed?

not at all very much so

1 2 3 4 5 6 7

Stimulated?

not at all very much so

1 2 3 4 5 6 7

Soothed?

not at all very much so

1 2 3 4 5 6 7

Please describe the commercial you just watched.

unpleasant pleasant

1 2 3 4 5 6 7

unlikable likable

1 2 3 4 5 6 7

boring interesting

1 2 3 4 5 6 7

tasteless tasteful

1 2 3 4 5 6 7

artless artful

1 2 3 4 5 6 7

bad good

1 2 3 4 5 6 7

C2. Intent to Try/Recommend (Spears & Singh, 2004)

Please describe your overall feelings about CBT as described in the commercial you just watched.

unappealing						appealing
1	2	3	4	5	6	7
bad						good
1	2	3	4	5	6	7
unpleasant						pleasant
1	2	3	4	5	6	7
unfavorable						favorable
1	2	3	4	5	6	7
unlikable						likable
1	2	3	4	5	6	7

Imagine that you are anxious and describe your intent to try CBT.

never						definitely
1	2	3	4	5	6	7
definitely do not intend to try						definitely intend to try
1	2	3	4	5	6	7
very low interest in trying						very high interest in trying
1	2	3	4	5	6	7
definitely not try it						definitely will try it
1	2	3	4	5	6	7
probably not try it						probably will try it
1	2	3	4	5	6	7

Imagine someone you know is anxious and describe your intent to recommend CBT.

never						definitely
1	2	3	4	5	6	7
definitely do not intend to recommend						definitely intend to recommend
1	2	3	4	5	6	7

very low interest in recommending very high interest in recommending

1 2 3 4 5 6 7

definitely not recommend it definitely will recommend it

1 2 3 4 5 6 7

probably not recommend it probably will recommend it

1 2 3 4 5 6 7

C3. Depression, Anxiety, and Stress Scale

DASS21

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all
1 Applied to me to some degree, or some of the time
2 Applied to me to a considerable degree, or a good part of time
3 Applied to me very much, or most of the time

1	I found it hard to wind down	0	1	2	3
2	I was aware of dryness of my mouth	0	1	2	3
3	I couldn't seem to experience any positive feeling at all	0	1	2	3
4	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5	I found it difficult to work up the initiative to do things	0	1	2	3
6	I tended to over-react to situations	0	1	2	3
7	I experienced trembling (eg, in the hands)	0	1	2	3
8	I felt that I was using a lot of nervous energy	0	1	2	3
9	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10	I felt that I had nothing to look forward to	0	1	2	3
11	I found myself getting agitated	0	1	2	3
12	I found it difficult to relax	0	1	2	3
13	I felt down-hearted and blue	0	1	2	3
14	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15	I felt I was close to panic	0	1	2	3
16	I was unable to become enthusiastic about anything	0	1	2	3
17	I felt I wasn't worth much as a person	0	1	2	3
18	I felt that I was rather touchy	0	1	2	3
19	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
20	I felt scared without any good reason	0	1	2	3

21	I felt that life was meaningless	0	1	2	3

C4. Recall Questions

What mental health problem did the advertisement focus on?

a. Depression
b. Anxiety
c. Alcoholism
d. Schizophrenia

What was the name of the therapy being advertised?

a. Interpersonal Therapy (IT)
b. Play Therapy (PT)
c. Cognitive Behavioral Therapy (CBT)
d. Pharmacotherapy (i.e., medication)

What website did the advertisement mention?

a. www.findatherapist.com
b. www.ABCT.org
c. www.treatdepression.com
d. www.EMDR.org

C5. Recall questions at follow-up

What mental health problem did the advertisement focus on?

e. Depression
f. Anxiety
g. Alcoholism
h. Schizophrenia

What was the name of the therapy being advertised?

a. Interpersonal Therapy (IT)
b. Play Therapy (PT)
c. Cognitive Behavioral Therapy (CBT)
d. Pharmacotherapy (i.e., medication)

What website did the advertisement mention?

d. www.findatherapist.com
e. www.ABCT.org
f. www.treatdepression.com
d. www.EMDR.org

In the time since viewing the advertisement, did you research any of the information discussed?

a. Yes
b. No

In the time since viewing the advertisement, did you recommend to a friend or family member any of the information discussed?

a. Yes
b. No

VITA

Joshua C. Fulwiler, M.A.

Education

Clinical Psychology Predoctoral Internship
Tulane University School of Medicine, New Orleans, LA
Child Track: Pediatric Psychology Focus
Completed: June 2017

Master of Arts
University of Mississippi, Oxford, MS
Clinical Psychology
Thesis title: How We Teach Psychology: A National Survey of Empirically Supported Teaching Techniques in Undergraduate Instruction
Advisor: Thomas W. Lombardo, Ph. D.
Degree awarded: August 2014

Bachelor of Arts
Tulane University, New Orleans, LA
Major: Political Economy
Degree awarded: May 2007

Work Experience

Tulane Center for Autism and Related Disorders – New Orleans, LA: Psychology Intern
Supervisor: Lisa Settles, Psy.D.
July 2016-June 2017
TCARD is a multidisciplinary clinic specializing in the identification and management of autism and other developmental disorders. Responsibilities included conducting diagnostic assessments, writing integrated reports, providing feedback to families, and coordinating with other service providers.

Metropolitan Human Services District – New Orleans, LA: Intern Therapist
Supervisor: Valerie Wajda-Johnston, Ph.D.
July 2016-June 2017
MHSD is a publicly funded, community-based mental health clinic serving children and adolescents from diverse backgrounds in Orleans Parish. Responsibilities included conducting intake assessments, developing treatment plans, providing individual and family therapy using a variety of modalities, and collaborating with other service providers.

Lakeside Hospital for Women and Children – Metairie, LA: Pediatric Psychology Consultation and Liaison

Supervisor: Lisa D. Settles, Psy.D.

July 2016-June 2017

Lakeside Hospital is the Tulane University School of Medicine training hospital that serves pediatric patients with a wide variety of medical presentations. Responsibilities included providing brief interventions, collaborating with medical providers, conducting screenings and assessments, and providing information and resources to both patients and providers.

Communicare - Oxford, MS: Provisionally Certified Mental Health Therapist

Supervisors: Dixie Church, LMFT; Alan Gross, Ph.D.

July 2015-July 2016

Communicare is a public community mental health center serving diverse clients from the local area. Responsibilities included conducting intake assessments, developing treatment plans, providing individual and family therapy, and collaborating with other service providers.

Delta Autumn Consulting, LLC – Oxford, MS: Clinic Assistant and Psychodiagnostican

Supervisors: John Young, Ph.D; Danielle Maack, Ph.D.

December 2014-July 2016

Delta Autumn Consulting is a private mental health practice serving children and adults. Responsibilities included day-to-day office management tasks, interfacing with clients and billing agencies, and conducting diagnostic assessments both in-office as well as in local schools.

Southern Star Yoga – Oxford, MS: Yoga Instructor

Owners: Stevi Self; Mary Solomon

January 2015-July 2016

Taught two hot flow vinyasa classes per week, with an average of fourteen students per class. Classes were designed to be accessible to students at all levels of practice and focused on pranayama, asanas, and meditation. Additionally taught classes at other locations in Oxford, MS, including the Oxford CrossFit gym and Haven House, an in-patient treatment facility for substance abuse.

University of Mississippi – Oxford, MS: Graduate Instructor

Course: PSY 201 – General Psychology

2013-2015

Taught four sections of introductory psychology over two academic years to undergraduate students, with approximately 100 students in each semester. Duties included developing a course curriculum, lecturing, and preparing and grading examinations.

University of Mississippi Psychological Services: Graduate Level Therapist

Supervisors: Thomas W. Lombardo, Ph.D; Scott Gustafson, Ph.D.; John Young, Ph.D; Karen Christoff, Ph.D..

August 2011-July 2016

Responsibilities included conducting intake assessments, developing treatment plans, providing

individual and group therapy sessions, and attending weekly supervision meetings.

The Baddour Center: Research Assistant
Supervisor: Shannon Hill, Ph.D.
August 2013-July 2016
The Baddour Center is a private residential facility for adults with mild to moderate intellectual disabilities. Responsibilities in this position include providing therapy services as well as overseeing the work of current interns, coordinating assessments, tracking clients' progress, and collaborating with other professionals to manage medical treatment. Additionally, taught one yoga class each week to staff and residents.

The Autism Center of North Mississippi: Clinical Intern
Supervisor: Scott Bethay, Ph.D.
August 2012-July 2013
The Autism Center of North Mississippi (formerly The Autism Center of Tupelo) provides therapy services based on applied behavioral analysis to children with autism spectrum and other developmental disorders. Duties included one-on-one therapy work, group social skills groups, consultations with parents, school visits and classroom-based interventions, and diagnostic assessments.

The Baddour Center: Education and Research Intern
Supervisor: Shannon Hill, Ph.D.
July 2011-August 2012
My responsibilities included seeing clients for both individual therapy sessions as well as group therapy, writing reports on behavioral and medical histories, and administering assessments of intellectual, adaptive, and neurological functioning.

Pelts, Kirkhart, Major, & Associates: Clinic Intern and Office Assistant
Supervisor: Kathryn Kirkhart, Ph.D., Michael Major, Psy.D.
May 2007- July 2009
PKM & Associates is a private mental health consortium in New Orleans, Louisiana, providing psychological services to adults and children. Responsibilities included leading and assisting with a social skills group for adolescents with Asperger's syndrome, scoring various assessment measures, and providing administrative support to the office staff.

Licenses/Certifications

- Provisionally Certified Mental Health Therapist – Jurisdiction: Mississippi
- Registered Yoga Teacher (RYT-200), Southern Star Yoga, Oxford, MS – Obtained: May 2015

Publications

Fulwiler, J.C., Black, A.K., Lombardo, T., Smitherman, T.A., & Kellum, K.K. How We Teach Psychology: A National Survey of Empirically Supported Teaching Techniques in Undergraduate Instruction. Manuscript in progress.

Black, A. K., **Fulwiler, J. C.**, & Smitherman, T. A.(2015). The role of fear of pain in headache. *Headache, 55*, 669-679. doi: 10.1111/head.12561

McDermott, M. J., **Fulwiler, J. C.**, Smitherman, T. A., Gratz, K. L., Connolly, K. M., & Tull, M. T. The relation of PTSD symptoms to migraine and headache-related disability among substance dependent inpatients. Manuscript under review.

Oral Presentations

Fulwiler, J.C. (2017, January). Exploring Yoga for Autism Spectrum Disorders: Calming Mind and Body. Presented at the Family Focused Workshop Series at the Tulane Center for Autism and Related Disorders, Tulane University, New Orleans, LA.

Fernando, M.D, **Fulwiler, J.C.**, Breidenstine, A.S., & Hinshaw-Fuselier, S.S. (2016, July). Diversity-Informed Mental Health Tenets: Diverse Family Structures. Presented for Child Psychology Grand Rounds at Tulane University School of Medicine, New Orleans, LA.

Fulwiler, J.C. (2016, March). Introduction to Autism: In-Service Training on Developmental Disabilities. Presented to the staff of the Baddour Center, Senatobia, MS.

Fulwiler, J.C., Lombardo, T.W., Smitherman, T.A., & Kellum, K.K. (2015, October). How Do We Teach Psychology? Presented at the 3MT (Three Minute Thesis) Competition at the University of Mississippi, Oxford, MS.

Fulwiler, J.C. (2015, April). Case Formulation and Conceptualization. Presented to faculty and psychology graduate students at the University of Mississippi, Oxford, MS.

Fulwiler, J.C., Lombardo, T.W., Smitherman, T.A., & Kellum, K.K. (2014, April). *How We Teach Psychology: A National Survey of Empirically Supported Teaching Techniques in Undergraduate Instruction*. Presented at the 2014 University of Mississippi Conference on Psychological Science, Oxford, MS.

Fulwiler, J.C. & Hill, S. (2013, August). Tourette Syndrome: In-Service Training. Presented to the staff of the Baddour Center, Senatobia, MS.

Ambrose, C.E., **Fulwiler, J.C.**, & Kim, E. (2012, April). "The Model Minority": Multiculturalism in Psychology. Presented at the University of Mississippi, Oxford, MS.

Poster Presentations

Grigg, J.P., Lombardo, T., **Fulwiler, J.C.**, & Hollis, S. (2015). Evaluation of Cognitive Processing Therapy's Five Cognitive Distortion Themes. Poster session submitted to the 2015 Association of Behavioral and Cognitive Therapies 49th Annual Convention, Chicago, IL.

McDermott, M. J., **Fulwiler, J. C.**, Tull, M. T., Gratz, K. L., & Smitherman, T. A. (2014, November). *Migraine and PTSD symptoms among inpatients with substance use disorders.* In M. J. McDermott (Chair), *New directions in the multidisciplinary study of PTSD: An examination of novel and understudied risk and resiliency factors.* Symposium

presented at the 48th annual meeting of the Association for Behavioral and Cognitive Therapies, Philadelphia, PA.

Hollis, S., Lombardo, T., McIlveene, A., Grigg, J., & **J. Fulwiler** (2014, April). Cognitive effects and academic consequences of video game playing in college students. Poster presented at the 4th Annual University of Mississippi Graduate School Research Forum, Oxford, MS.

Hollis, S., Lombardo, T., McIlveene, A., Grigg, J., & **J. Fulwiler** (2014, April). Cognitive effects of video game playing. Poster presented at the 2014 University of Mississippi Conference on Psychological Science, Oxford, MS.

McDermott, M. J., Fulwiler, J. C., Tull, M. T., Gratz, K. L., & **Smitherman, T. A.** (2013, November).*Migraine and PTSD symptom severity among inpatients with substance use disorders: Examining the moderating role of gender.* Poster presented at the 47th annual meeting of the Association for Behavioral and Cognitive Therapies, Nashville, TN.

Bentley, S., Grigg, J., Hollis, S., McIntire, L., **Fulwiler, J.**, & Lombardo, T. (2013, November). College students' smoker identity varies with physical activity levels. Poster presented at the 2013 American Public Health Association's Annual Meeting, Boston, MA.

Professional Activities

Ad hoc reviewer for manuscript submitted to *American Journal of Public Health*, 2013

Ad hoc reviewer for two manuscripts submitted to *Behavior Modification*, 2012

Ad hoc reviewer for manuscript submitted to *Journal of Traumatic Stress*, 2012

Ad hoc reviewer for manuscript submitted to *Journal of Epidemiology & Community Health*, 2012

Ad hoc reviewer for manuscript submitted to *Journal of American College Health* 2010

Edited three textbook chapters for Jerome Sattler, Ph. D., 2010

Honors and Awards

- Best Presentation Award, 1st Annual University of Mississippi Conference on Psychological Science, 2014
- Deans' Honor Scholarship Recipient, Tulane University, Fall 2003-Fall 2007 - full-tuition, merit-based academic scholarship