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DIRECT-TO-CONSUMER ADVERTISING OF COGNITIVE BEHAVIORAL THERAPY FOR THE TREATMENT OF DEPRESSION

A Dissertation
presented in partial fulfillment of requirements
for the degree of Doctor of Philosophy
in the department of Clinical Psychology
The University of Mississippi

By

LAUREN B. FLEGLE

August 2014

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ABSTRACT

Depression has become a serious problem worldwide that is costly in terms of lost productivity and premature mortality (Kessler et al., 2003). Cognitive Behavioral Therapy (CBT) has demonstrated efficacy in the treatment of depression, working as well or better than medication in randomized clinical trials (Butler, Chapman, Forman, & Beck, 2006; DeRubeis & Crits-Christoph, 1998). However, epidemiological data indicates that psychotherapeutic options like CBT are being underutilized in the treatment of depression (Gonzalez et al., 2010). Efforts to increase the provision of CBT have traditionally focused on training and supervising treatment providers, a successful approach in many instances (e.g., Clark, 2012; Schoenwald, Sheidow, & Chapman, 2009). However, many practicing clinicians report infrequent use of CBT and there are still large portions of the population without access to effective mental health care (Addis, 2002; Chu et al., 2012). A new approach to dissemination, one that focuses on increasing consumer demand via direct-to-consumer advertisements, would complement current dissemination efforts and further increase the application of CBT for the treatment of depression (McHugh & Barlow, 2012). The current study sought to evaluate the effectiveness of four different types of direct-to-consumer advertisements for CBT. The commercials varied in terms of appeal (emotional or rational) and spokesperson (expert or consumer), and because there was no precedent within the field of psychology, they were developed using empirical literature from a number of domains (e.g., marketing, advertising, psychology, etc.). Participants were asked

to view a commercial and then complete measures asking what they thought about the advertisement, what they think about CBT, their intent to try or recommend CBT, and their thoughts about the spokesperson. Comparison of these factors among the four commercials revealed few significant differences, though regression analyses indicated that source characteristics and attitudes are important factors to consider both in future research and in advertising efforts focused on marketing CBT for the treatment of depression.

LIST OF ABREVIATIONS AND SYMBOLS

CBT	Cognitive Behavioral Therapy
DTC	Direct-to-consumer
DTCA	Direct-to-consumer advertising
ω^2	Omega squared
N/n	Number of observations
M	Mean
SD	Standard deviation
SE	Standard error
α	Cronbach's alpha
F	ANOVA and regression test statistic
df	Degrees of freedom
p	Significance value
η_p^2	Partial eta squared
R^2	Explained variance in regression
β	Standardized regression coefficient
Δ	Change in
χ^2	Chi squared test statistic

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TABLE OF CONTENTS

ABSTRACT. ii

LIST OF ABBREVIATIONS AND SYMBOLS iv

ACKNOWLEDGMENTS v

LIST OF TABLES vi

INTRODUCTION 1

METHODS 19

RESULTS 24

DISCUSSION 35

REFERENCES 40

APPENDIX 53

VITA 75

LIST OF TABLES

1. Descriptive Statistics Pilot Data 55

2. Sample Characteristics 56

3. Multivariate Analyses: Means for Time One Data 57

4. Univariate Analyses: Main Effect of Group 58

5. Univariate Analyses: Main Effect of Time 59

6. Attitude Predicting Intent to Try CBT 60

7. Attitude Predicting Intent to Recommend CBT 61

8. Source Credibility Predicting Attitude Toward CBT 62

9. Source Credibility Predicting Advertisement Evaluation 63

I. INTRODUCTION

The Case for a New Approach to Dissemination

Depression manifests with both psychological and physical symptoms. The hallmarks of this disorder include a depressed mood and/or a loss of interest in previously enjoyable activities, but disturbances in sleep, appetite, and psychomotor functioning are also common. People suffering from depression may also report feelings of fatigue, worthlessness, guilt, and recurrent thoughts about death (APA, 2000). The World Health Organization (WHO) has acknowledged that depression is a major problem and projects that by the year 2020 it will be the second most burdensome health issue in the world (WHO, 2012). The best estimates of prevalence in the United States come from a National Comorbidity Survey Replication (NCS-R) in which 9,090 adults participated in a face-to-face interview asking about psychological symptoms. These data suggest that 16.2% of people will deal with major depressive disorder (MDD) at some point in their lives (Kessler et al., 2003). Depression is costly in terms of both lost productivity and premature mortality (Kessler et al., 2003), but the extant literature on psychological interventions for depression suggests it is highly treatable.

Cognitive Behavioral Therapy (CBT) posits that the symptoms of depression are both caused and maintained by maladaptive cognitive processes, and that symptoms will abate when these dysfunctional cognitions are modified through a number of behavioral

and cognitive techniques (Beck, 1995, 2011; Dobson & Dozois, 2001; Driessen & Hollen, 2010). Meta-analyses examining efficacy trials of CBT versus other conditions consistently find that CBT is superior to both placebo and wait-list control conditions (Butler, Chapman, Forman, & Beck, 2006). It has even demonstrated its usefulness above and beyond other forms of psychotherapy and pharmacological intervention (Butler, et al., 2006). This is especially true when considering relapse rates. DeRubeis and Crits-Christoph (1998) found that, over three large clinical trails, at one-year follow-up 64% of those using psychotropic medication had relapsed whereas this happened to only 26% of those who participated in cognitive therapy. Additionally, research suggests that adding medication to CBT does not lead to a statistically significant improvement of symptoms, implying that CBT alone is the mechanism of change (Driessen & Hollon, 2010). While a complete review of the outcome literature is beyond the scope of this study, it is important to note that the American Psychological Association (APA) categorizes CBT as a well-established treatment for depression due to the volume of carefully controlled research in which it has repeatedly demonstrated its superiority to other treatments (Chambless & Ollendick, 2001).

Research on the treatment of depression in the United States, however, indicates that psychotherapeutic options (like CBT) are underutilized. Data from the National Institute of Mental Health Collaborative Psychiatric Epidemiology Surveys revealed that just 19.13% of depressed people sought psychotherapy for treatment (Gonsalez et al., 2010). Wei et al. (2005) used Medicare claims data between 1992 and 1999 to examine the treatment of elderly individuals with depression and found that just 25% of them utilized any amount of psychotherapy, despite strong evidence for its efficacy in this population. And though the public's knowledge of mental health problems and attitudes toward

psychotherapy as a treatment are generally improving (Jorm, Christensen, & Griffiths, 2006), their knowledge regarding evidence based practice in mental health care is still lacking (Sheyett, McCathy, & Rausch, 2006). These findings can be taken collectively to suggest that in the unlikely event that someone seeks psychotherapy for treatment of her/his depression, it is fairly implausible that s/he would be able to ask about a specific evidence-based practice (i.e., CBT).

This gap in service provision has led many researchers to investigate methods to increase public access to evidence-based psychological interventions (EBPIs). Efforts to disseminate EBPIs are founded in diffusion research, which is concerned with the means by which an innovation is adopted (Rogers, 2003). Adoption refers to the integration of an innovation into one's daily life, and is contingent upon the characteristics of the innovation itself, the channels through which information about the innovation is communicated, and the rate at which an innovation is adopted by a group of individuals working toward a common goal.

In the case of EBPIs, service providers will be the ultimate adopters who integrate them into daily practice, and so they have been the targets of most dissemination efforts (Santucci, McHugh, & Barlow, 2012). For example, the United Kingdom is in the midst of a large-scale initiative to increase and improve the services available to citizens with anxiety and depression. The primary goals of this initiative are to increase the availability of effective treatments while decreasing the unemployment and sick pay/state benefits related to anxiety or depression. To this end, the government has allocated 309 million pounds to be used in training more than 3,600 new therapists how to use EBPIs (primarily CBT) in the treatment of these emotional/behavioral problems. The therapists participated

in university courses, in-service trainings, and direct supervision almost every day for a year. To date, the program has been successful in increasing the availability of mental health services as well as reducing unemployment and compensatory pay given to those missing work due to depression and anxiety related illnesses (Clark, 2012).

Other dissemination models take a less intensive approach, but are still founded in the training and supervision of practicing clinicians. Steinfeld, Coffman, & Keyes (2009) outline an effort to disseminate CBT in which expert psychologists delivered two, day-long in-services and monthly supervision over the course of two years. Shoenwald, Sheidow, & Chapman (2009) provided weekly, on-site, treatment specific supervision and noted its positive impact on clinician's performance and client outcomes. In addition to training and supervising potential adopters, a large portion of psychology's work in dissemination involves identifying and overcoming barriers to implementing EBPIs in every day practice. Experts have written articles to dispute common misconceptions and concerns clinicians have about using EBPIs (e.g., Addis, 2002; Addis, Wade, & Hatgis, 1999; Hunsley, 2007), and have even suggested alternate methods of service delivery (e.g., computerized CBT, CBT in schools and primary care settings, camp-base CBT) as a way to increase the transportability of these treatments (Elkins, McHugh, Santucci, & Barlow, 2011).

While the field has experienced success with these methods, there is room for improvement (McHugh & Barlow, 2012). A large portion of the population is still underserved in terms of access to effective mental health care (Chu et al., 2012), and practicing clinicians continue to report infrequent use of CBT (Addis, 2002; Drake et al., 2003; McCabe, 2004). It is time to consider alternative methods. The pharmaceutical

industry models a different approach that, in addition to current efforts, might improve the dissemination of EBPIs.

The Psychopharmacology Model

Antidepressant medications have been a popular treatment for depression since the mid-1990s (Antonuccio, Danton, & DeNelsky, 1995). Stafford, MacDonald, and Finkelstein (2001) noted a 70% increase in the number of patients seeking medical treatment for depression between 1987 and 2001, and data from the 1996 and 2005 Medical Expenditure Panel Surveys indicate that among individuals ages six and above, the rate of those who had used antidepressant medication in the last year increased from 5.84 to 10.12 out of every 100 people (Olfson & Marcus, 2009). During the same time period, Olfson and Marcus (2009) also documented a decrease in the reported use of psychotherapy to treat depression.

There is no doubt that the dramatic increase in the use of psychotropic drugs to treat depression is due in large part to the development of Selective Serotonin Reuptake Inhibitors (SSRIs) in the late 1980s, a safer alternative to many of the antidepressants available during that time (Olfson et al., 2002; Pincus et al., 1998; Stafford, MacDonald, & Finklestein, 2001). However, in 1997 the Food and Drug Administration (FDA) relaxed the information requirements that had previously limited drug companies to advertising exclusively to professionals (e.g., in medical journals), and many believe that played a critical role in the widespread use of antidepressant medication as well (e.g., Antonuccio, Danton, & DeNelsky, 1995; Olfson & Marcus, 2009).

The resultant direct-to-consumer advertising (DTCA) strategies that developed refer to the marketing or advertising of prescription drugs to the people who might *use* the

medication as opposed to the medical professionals who might prescribe it (FDA, 2012). Between 1996 and 2005 spending in this arena increased 330% (Donohue, Cevasck, & Rosenthal, 2007), and it has proven to be money well spent. For example, research from the Kaiser Family Foundation (2003) found that among the 25 most popular drug classes in the year 2000, every $1.00 a company spent on DTCA returned $4.20 in additional drug sales. Consumer reports indicate that in a given year, up to a third of the adults surveyed had asked a physician about a specific health problem in response to seeing an advertisement (Hollon, 2005). A review of the effectiveness research in this area concluded that DTCA has a significant effect on patient requests for specific drugs and is associated with an increase in the number of prescriptions written for the advertised medications (Gilbody, Wilson, & Watt, 2005).

More salient to the current study is the DTCA of antidepressants specifically, which are among the most heavily advertised drug classes (Rosenthal et al., 2002). Consistent with the pharmaceutical industry as a whole, data indicates that the DTCA of antidepressants is also a lucrative tactic. Indeed, Donohue et al., (2004) found there is a 32% higher probability of being prescribed an antidepressant during periods of high DTCA spending. Research has also demonstrated that DTCA of antidepressants can affect public beliefs and attitudes surrounding depression and treatment. Park and Grow (2008) showed that familiarity with DTC print advertisements was associated with increased prevalence and lifetime risk estimates of depressive disorders. For college students without prior experience with depression, increased exposure to a DTCA for an antidepressant was associated with more positive evaluations of the drug and an increased likelihood to recommend it as a treatment for depression (An, Jin, Brown, 2010). Other

research has demonstrated that patient requests following exposure to DTCA can have a profound impact on the prescribing behavior of physicians. Kravitz et al. (2005) had confederates deliberately describe an adjustment disorder, for which the use of antidepressants is not supported, and then ask for a specific brand of antidepressant. These confederates were given the requested drug 55% of the time (Kravitz et al., 2005).

Direct-to-Consumer Advertising for Psychotherapy

The success of the pharmaceutical industry has led many to conclude that direct-to-consumer advertising is a promising new direction in the effort to disseminate evidence-based psychological interventions (EBPIs; Santucci, McHugh, & Barlow, 2012). The purpose of the current study was to examine the effect of direct-to-consumer marketing via television commercial on people's attitudes toward and willingness to engage in or recommend cognitive-behavioral therapy (CBT) for the treatment for depression. Pharmaceutical companies have found demonstrable success with television campaigns in the past (e.g., Ann, Jin, & Brown, 2010; Bradford, Kleit, Nietert, & Ornstein, 2010). The current study sought to capitalize on research in this area to develop and contrast four commercial stimuli for CBT to determine which, if any, is the most effective way to market to a college population.

Research on the efficacy of DTCAs for psychological interventions is still in its infancy, so there was not an already established commercial model with which to start. Psychopharmacology provides a successful model within the domain of mental health, and much can be learned from the research in this field. However, psychotropic drugs are a product, something one can see, hold, and readily evaluate in terms of effects. Psychotherapy, on the other hand, is considered a service. The intangibility of services and

the difficulty in moment-to-moment evaluation (e.g., it is difficult to determine whether or not you are getting a good haircut half-way through the process) have led many researchers to conclude that advertising/marketing services often requires a different approach than one would use with a product (Mortimer & Mathews, 1998). The current study drew from both fields to determine the appeal, source, and content most likely to be successful in the direct-to-consumer advertising of psychological treatment.

Commercial Appeal Advertising appeals are generally dichotomized as either rational or emotional in nature (Laskey et al., 1995). Rational appeals offer information as to why a product or service is the "logical" solution to the consumer's dilemma, while emotional appeals seek to elicit either positive or negative emotions that will result in positive feelings about the product or service being advertised (Albers-Miller & Stafford, 1999). Pollay (1983) provides an exhaustive list of 42 appeals that can be used in advertising (e.g., effective, popular, adventure, safety, etc.), which are further classified as either rational or emotional in the work of Albers-Miller and Stafford (1999).

Before considering the role of rational and emotional appeals in service advertising, it is important to note the terminology used to discuss services in this context. Bowen (1990) developed a taxonomy of services that divided them into three groups. Group One includes highly customized, people oriented services where employees are important and have substantial contact with consumers. Group Two consists of moderately customized services that are more object-oriented and involve little employee-consumer interaction. Finally, Group Three is similar to Group One services except that the service lasts for a short time and therefore includes only moderate employee-consumer contact. Stafford and Day (1995) dichotomized elements of Bowen's taxonomy and classified services as either

"experiential" or "utilitarian." The former refers to services with high levels of employee contact and customization that are directed toward the person while the latter describes services that are more functional in nature, include low levels of employee contact and customization, and are focused more on an object than the person seeking the service.

Historically, the experiential/utilitarian distinction has been of central importance in deciding which appeal is going to work best for a particular service. The "contingency approach," as espoused by Johar and Sirgy (1991), states that utilitarian services will benefit most from rational appeals while experiential services should make emotional appeals. Mattila (1999; 2000) provided support for this theory when she demonstrated that emotional appeals used for experiential services (hotels and restaurants) elicit more positive reactions and higher intent to patronize than rational appeals do. She also noted that emotional appeals are especially powerful when the consumer possesses limited knowledge of the service being advertised. A content analysis of print ads for both experiential and utilitarian services revealed that utilitarian (financial) services were most likely to use rational appeals while experiential (travel) services were significantly more likely to contain an emotional appeal, providing statistical support for the contingency approach (Albers-Miller & Stafford, 1999). However, the authors noted that both types of appeals were used for both types of services and most advertisements used a combination.

Examined more broadly, the empirical literature does not consistently support the contingency approach. A study focused on the retail industry found that for both experiential and utilitarian services in this domain, rational appeals elicited more positive attitudes toward the ad (Stafford & Day, 1995). On the contrary, Mortimer (2008) analyzed six successful television advertisements using Pollay (1983) and Albers-Miller

and Stafford's (1999) classification system and found a prevalence of emotional appeals despite the fact that five of the six services were utilitarian in nature (bank, mobile phone provider, insurance, car recovery, and credit card services). She concluded that emotional advertisements are effective for both types of services and that matching the appeal and service is not necessary.

Unfortunately, the pharmaceutical industry's direct-to-consumer advertisements (DTCAs) offer limited guidance in choosing the appeal best suited for psychotherapeutic services. These ads are not only product-focused, but are also subject to FDA regulations, which mandate that a certain amount of information be included in every one. Therefore, each ad necessarily contains elements of a rational appeal though most include emotional appeals as well (Pinto, 2000). As part of her examination on the type of appeals used in DTC print ads for prescription drugs, Pinto (2000) evaluated five ads for psychotropic medications and noted that all contained an emotional (fear) appeal in addition to the necessary information. Limbu and Torres (2009) compared three print ads for a fictional sleep aide and found that the persuasive (emotional) messages produced more favorable attitudes and intent to "ask a doctor" than the informational ads, and that the effect was even stronger for those who perceived the product as personally relevant.

The appeals used in anti-smoking campaigns are also worth consideration because they are promoting health behaviors and have demonstrated efficacy in reducing both adult and youth smoking (McVey & Stapleton, 2000; Siegel & Biener, 2000). Survey research involving 3863 youth aged 12-17 revealed that emotional intensity was an even stronger predictor than broadcast volume (exposure to the ad) in whether or not a respondent recalled the ad (Biener et al., 2008). A study that followed 200 smoking adults

over the course of two years found that exposure to anti-smoking ads increased the odds that a person had quit at the two-year follow up, and that the odds were even higher if the ads had contained highly emotional content and personal testimony (Durkin, Biener, & Wakefield, 2009).

Taken as a whole, the literature on advertising appeals for the service industry is inconclusive and suggests that there may not be a hard and fast rule for what works best. In a review of the service advertising literature, Stafford (2005) acknowledges that appeals must be evaluated at the level of specific services within a specific culture. Therefore, the current study compared ads that used either rational or emotional appeals, delineated as clearly as possible with an effort to develop “pure” representations of each.

Commercial Source Choosing the best representative to communicate a persuasive message is extremely important in any advertising campaign, and so has been the subject of extensive research. Wilson and Sherrell (1993) reviewed 114 studies examining the source characteristics that had the greatest persuasive impact. Each of the studies examined had manipulated at least one of three source dimensions (credibility, physical attractiveness, ideological similarity) and looked at the persuasive effects in terms of psychological characteristics (beliefs, attitudes, intentions) or observed behavior. A comparison of the effect sizes (ω^2) achieved by each manipulation revealed that expertise as established by some credential has the strongest effect on the persuasiveness of a message. They also found that messages delivered using oral communication and video media were the most persuasive (Wilson & Sherrell, 1993).

The service advertising literature generally says that making a service more tangible (i.e., visual or verbal cues that help a consumer picture the service being delivered) helps a

consumer to better understand a service and increases positive response to the ad (Stafford, 1996). The use of a service provider in a commercial can serve as a tangible cue to consumers (Stafford, 1998). Using a psychologist as a spokesperson in advertisements for therapy therefore serves two purposes: s/he functions as an expert source as well as a potential visual cue to make the service more tangible.

However, expert service providers are not the only effective medium through which to convey a persuasive message about a service. Bush, Moncrief, and Ziethaml (1987) noted that three of the most commonly used sources in the service industry include a professional (expert/service provider), a consumer, and a hired spokesperson. They created a 30-second television commercial using each source to advertise a doctor, a dentist, a lawyer, and a chiropractor and measured how credible the audience found each ad. A significant interaction between profession and source revealed that advertisements for lawyers were most credible when a hired spokesperson was used, chiropractors benefitted most from using a professional, dentists could use either a professional or consumer testimony, and doctors were most credible when they used consumer testimony (Bush, Mocnrief, & Ziethaml, 1987). Therapy's similarity to medical care (in many respects) suggests that using consumer testimony may also be an effective way to communicate a persuasive message; however, no existing publication could be located that tested this.

Services like therapy, which are considered high risk and difficult to evaluate, often benefit the most from word of mouth (WOM) advertisement (Anderson, 1998; Hugstad, Taylor, & Bruce, 1987). WOM is the exchange of information between two or more consumers and is frequently communicated in the form of a referral to particular services

(Dobele & Lindgreen, 2011). Indeed, when 153 undergraduate students were asked what search strategies they would use to find a mental health care provider, most reported that they would ask a personal source of information (e.g., a doctor, friend, or family member) for a referral (Lipscomb, Root, & Shelley, 2004). Advertising is an effective way to generate WOM, and some research even suggests that approximately 20% of WOM refers to paid advertising (Graham & Havlena, 2007; Keller & Fay, 2009). Mortimer and Mathews (1998) point out that consumer testimony is a way to mimic WOM in paid advertising.

The pharmaceutical industry also relies heavily on consumer testimony in their DTCAs, particularly that of celebrity consumers. Antidepressants are especially known for offering lucrative endorsement deals, and have used celebrities like Terry Bradshaw (Paxil), Linda Dano (Prozac), and Lorraine Bracco (Pfizer's anti-depression campaign; Edwards, 2007). Drug companies seek celebrities because they are highly recognizable and can increase brand awareness for a company (Goetzl, 1999). Celebrities are also used because the public frequently perceives them as trustworthy and credible, though as Stafford and Stafford (2002) point out, relying on any public figure is risky because their behavior is tied to the product and scandals are unpredictable (e.g., Tiger Woods lost several endorsement deals after news of his extra-marital affairs became public knowledge). Additionally, conclusions as to the effect of celebrity endorsement are not unequivocal, as some research suggests that celebrity status does not make the advertisement more effective. Bhutada, Menon, Deshpande, & Perri (2012) compared advertisements for a fictional allergy medication that either did or did not use a celebrity endorser and found that there was no difference in the perceived credibility of the sources. These researchers go on to suggest that companies looking to increase brand awareness

avoid the cost of hiring a celebrity and instead find attractive, credible, and believable non-celebrity spokespeople.

Given the consistent evidence of effective persuasion from both types of spokespeople, the current study examined the use of both an expert service provider (psychologist) and a consumer providing first-person testimony. Although research has also focused on celebrity endorsement, which would make another logical source of variation in advertising methods, it was beyond both the scope and means of the current study to integrate this into the methods.

Commercial Content Pollay (1983) asserts that the goal of advertising is to draw attention to the values associated with a given product that can be realized through the consumption or use of that product. The decision to test both a rational and an emotional appeal provided a general guide as to what each ad should include, but further consideration of the values inherent in treating depression with cognitive behavioral therapy is necessary. Unfortunately, little is known about the values associated particularly with the selection of mental health treatments, so it is necessary to consult the broader diffusion and service selection literature.

Diffusion research in the health care domain outlines several characteristics of an innovation that influence the likelihood of its adoption. These include how clear the advantage of the innovation is, how well it matches the adopter's perceived needs and values, how easy it is to use, whether or not one can try it before adoption, how visible the benefits are, and how customizable the innovation is (Greenhalgh et al., 2004). Similarly, Bowen's (1990) service taxonomy outlines the importance of the perceived ability to

customize and access services like therapy to potential consumers. Bowen (1990) also emphasizes the importance of a knowledgeable service provider with a broad range of skills.

The empirical literature supports the notion that service selection in other health care domains (not mental health) is greatly impacted by the perceived expertise of the provider. Douglass et al. (2004) found that among people seeking medical treatment for asthma, the perception of physician knowledge and that the patient's unique experience was being listened to were the most salient factors when evaluating the medical service. Murray (1992) also investigated the selection of respiratory care services and claimed that because consumers lack the knowledge to evaluate health care provider attributes, they frequently relied on the more operational aspects of a service like proximity and fees. Indeed, when participants in both focus groups and telephone interviews were asked what criteria would help them choose a new primary care physician, most mentioned proximity to their home or workplace in addition to being able to get quick relief from their ailments (Wun et al., 2010). It is clear, then, that convenience is of importance when potential consumers are initially selecting a service provider.

As in choosing mental health care providers, people frequently seek the opinions of family and friends when trying to choose a new physician (Wolinsky & Steiber, 1982; Wun et al., 2010). Also consistent with mental health referrals, little is known about the content of these referrals (i.e., what makes them effective). Dobele and Lindgreen (2011) acknowledged this lack of research and noted that mothers are frequent consumers of health care (e.g., prenatal, delivery, and postnatal care) and therefore represented a logical starting place in examining referral behavior. These researchers discovered that the

content important to mothers' service selection typically included information that conveyed the likelihood of a positive service encounter for both mother and child (e.g., doctor is nice/good with kids, support staff is friendly) as well as the potential for a lasting relationship in which the doctor would "be there" for the child as s/he got older. Information about the personality of the provider was also considered important (Dobele & Lindgreen, 2011).

The content of the commercials used in the current study was derived from the factors which have been empirically identified as important to consumers when adopting new health practices or selecting a medical service provider. Each of the identified factors was matched to an appeal as defined in Pollay (1983), and then further classified as either emotional or rational using the categorizations in Albers-Miller and Stafford (1999). Using this outline, the author was able to develop content specific to CBT that is likely to impact consumer evaluations. The rational advertisements included appeals pointing out the effectiveness and convenience of CBT for depression, while the emotional advertisements focused more on the succorance (i.e., the need to be nurtured) and affiliation needs satisfied during the service encounter, as well as the instrumental use of CBT to fulfill the need for enjoyment in life.

Developing the Commercial Stimuli

Four television commercials, filmed and edited with the assistance of the Theatre Department at the University of Mississippi, were developed to test the research hypotheses. The commercials utilized the "talking head" format and ranged in length from 49-55 seconds. Though they differed in terms of content, visual elements such as background, music, and camera angles were consistent across conditions. The same

actress was used to portray both the expert and consumer source to control for confounds related to characteristics other than her spoken credentials. The final script for each of the commercial conditions is located in Appendix B.

Hypotheses

Though the appeal and source manipulations used in the current study are common and well-researched strategies in advertising, they have yet to be examined in terms of marketing a particular approach to clinical psychological services. There is, however, an analogue method of communication in the health service field that could inform the current study's strategies. For example, as cited in the introduction, commercials displaying highly emotional smoking cessation messages have been noted to be successful in influencing people's health related behavior, positive attitudes toward change, and intent to stop smoking (Biener et al., 2008; Durkin, Biener, & Wakefield, 2009; McVey & Stapleton, 2000; Siegel & Biener, 2000). Additionally, evidence supporting the effectiveness of word-of-mouth referrals (Bhutada, et. al, 2012) and the frequent and successful use of consumer spokespeople by the pharmaceutical industry (Edwards, 2007; Goetzl, 1999) suggests that viewers will respond most favorably to the consumer source. Therefore, it is anticipated that:

H_1: When comparing the emotional and rational appeals, viewers in the emotional condition will report more positive attitudes, greater intent, and better recall than viewers in the rational condition.

H_2: When comparing the expert and consumer sources, viewers in the consumer condition will report more positive attitudes, greater intent, and better recall than viewers in the expert condition.

H_3: When comparing the four commercial conditions, viewers in the Emotional Consumer condition will report more positive attitudes, greater intent, and better recall than viewers in the other three commercials.

Consistent with the large meta-analysis of source manipulations that identified expertise as having the largest effect on source credibility (Wilson & Sherrell, 1993), the following is expected:

H_4: The expert will receive higher source credibility scores than the consumer.

Finally, a number of regressions will be used to assess the relationships among the dependent variables. After controlling for the commercial condition and other relevant demographics, the following relationships are expected:

H_5: Higher attitude scores will predict higher intent to use CBT.

H_6: Higher source credibility scores will predict higher attitude scores.

H_7: Higher attitude scores will predict better recall of the commercial.

II. METHODS

Participants

Students enrolled in four large introductory level college courses were given the opportunity to participate in the current study. Participants were asked to indicate on their survey whether or not they had prior exposure to the commercials (i.e., through participation in the pilot testing phase of study). Data from respondents who reported prior exposure (N = 32), did not provide necessary information such as name/consent (n = 7) or age (n = 4), entered class after the video had begun playing (n = 1), or displayed an obvious validity issue (i.e., drew a pattern; n = 2) were eliminated from the final sample to reduce the chance of confounding the results. Class rosters were also reviewed to verify that those participating were not enrolled in more than one of the classes surveyed. The final sample consisted of 579 students (mean age = 19.37, *SD* = 2.053) at time one, whose classrooms were randomly assigned to conditions. The numbers of participants by commercial condition were as follows: 153 (26.4%) Emotional Expert; 174 (30.1%) Rational Expert; 194 (33.5%) Emotional Consumer; and 58 (10%) Rational Consumer viewers. The sample at time one was primarily female (62%) and Caucasian (77.4%).

Additionally, 482 students (mean age = 19.31, SD = 1.762) from the original sample participated in follow-up data collection one week after their initial viewing of the commercial. Participants were once again primarily female (62%) and Caucasian (77.2%), with their original assignment to groups as follows: 122 (25.3%) Emotional Expert; 146

(30.3%) Rational Expert; 167 (34.6%) Emotional Consumer; and 47 (9.8%) Rational Consumer viewers. Sample characteristics are displayed in Table 2.

Measures

Advertisement Evaluation The consumer-reported effectiveness of any given advertisement is frequently a product of whether or not the consumer liked it (MacKenzie, Lutz, & Belch, 1986). For this reason, attitudes toward the advertisement were assessed using a scale developed by Madden, Allen, and Twible (1988), who proposed that consumers have both affective and cognitive responses to ads that are distinct but important parts of their overall attitude. This measure consists of eight affective states rated on a 7-point, Likert-type scale as well as six semantic differentials (i.e., bipolar adjectives) also rated on a 7-point scale. Previous research has provided support for a three-factor structure (i.e., positive affect, negative affect, and ad evaluation), each of which demonstrated adequate reliability coefficients (alphas = .89, .75, .88 respectively; Madden, Allen, & Twible, 1988). In the current study, the factors were combined to produce a single scale score representing overall Advertisement Evaluation. The combined scale demonstrated high levels of internal consistency across both samples (α_1 = .89; α_2 = .91). See Appendix C1 for full measure.

Attitude to Brand and Intent to Try/Recommend Previous research also suggests that consumers make evaluations of the brands advertised in commercials, which in turn are widely theorized to motivate intent and buying behavior (Spears & Singh, 2004). Spears and Singh (2004) developed a psychometrically sound instrument to assess these constructs, which they termed attitude toward the brand (Ab) and purchase intention (PI). They produced a 10-item semantic differentiation task that uses a 7-point scale. The

reliability for both factors has previously been demonstrated to be high (Ab $\alpha = .94$ and PI $\alpha = .97$; Spears & Singh, 2004). It was necessary to make slight modifications to the wording of this measure in the current study to reflect the fact that CBT is a health service one engages in under specific circumstances and not necessarily a product typically encountered in daily life. Participants were asked to imagine that they were depressed and then rate the likelihood that they would try CBT for treatment. Additionally, to assess the advertisement's impact on referral behavior, the intent to purchase questions contained in the original instrument were modified. The participant was asked to imagine that someone s/he knows is depressed and then to rate the likelihood s/he would recommend CBT. Thus, in total, three measures were used to assess participants' attitudes and behavioral intent. Attitude to Brand/CBT ($\alpha_1 = .93$; $\alpha_2 = .96$), Intent to Try CBT ($\alpha_1 = .95$; $\alpha_2 = .96$), and Intent to Recommend CBT ($\alpha_1 = .97$; $\alpha_2 = .97$) each demonstrated good internal consistency reliability at every time point in the present sample. See Appendix C2 for full measures.

Measure of Disseminability (MOD) The Measure of Disseminability (MOD) is a 32-item instrument that assesses factors that influence the adoption of a psychological treatment (Trent, Buchanan, & Young, 2010a). The measure produces information regarding the responder's evaluation of, comfort with, and negative expectations for a described treatment. Previous psychometric investigation of the measure demonstrated a stable, 3-factor solution that corresponds to these categories with adequate internal consistency for each factor ($\alpha s > .70$; Trent, Buchanan, & Young, 2010b). Internal consistency reliability in the present study was also acceptable (Treatment Evaluation: $\alpha_1 = .95$; $\alpha_2 = .97$; Level of Comfort with Treatment: $\alpha_1 = .85$; $\alpha_2 = .89$; Negative Expectations for Treatment: $\alpha_1 = .70$; $\alpha_2 = .75$). See Appendix C3 for full measure.

Source Credibility The measure used to evaluate the source consisted of 15 semantic differentials such as friendly/unfriendly, skilled/unskilled, and timid/bold, as derived from a previously published, widely utilized measure in marketing (Berlo, Lemert, & Mertz, 1970). This scale is meant to be a general tool with which to understand an audience's perception of a message source, and it yields three factors: safety (trustworthiness), qualification (expertise), and dynamism (Berlo et al., 1970). The factors demonstrated good internal consistency in the present study (Safety: $\alpha_1 = .87$, $\alpha_2 = .90$; Qualification: $\alpha_1 = .94$, $\alpha_2 = .96$; Dynamism: $\alpha_1 = .82$, $\alpha_2 = .83$) and were examined individually to investigate the specific characteristics associated with a well-received source. See Appendix C4 for full measure.

Involvement The Personal Involvement Inventory (PII) is a 20-item scale of semantic differentials meant to assess the perceived personal relevance of a product based on the person's needs, values, and interests (Zaichkowsky, 1985). The scale produces an "involvement" score by summing all items, which ranges from 20 to 140. Psychometric investigation has revealed that all of the items load positively onto the "involvement" construct and that test-retest reliability is high (i.e., .90; Zaichkowsky, 1985). The measure demonstrated good internal consistency in the present study ($\alpha_1 = .96$; $\alpha_2 = .97$). See Appendix C5 for the full measure.

Depression The Depression, Anxiety, and Stress Scale (DASS-21) is a well-known and broadly used 21-item inventory of the physical and emotional symptoms related to depression and anxiety (Antony et al., 1998; Lovibond & Lovibond, 1995). This measure is able to reliably distinguish people with clinical disorders from those who do not have them, and it yields individual subscale scores for depression, anxiety, and stress (Antony et al.,

1998). In tests of the measure's psychometric properties, both the full scale and subscale scores demonstrated adequate reliability ($\propto s > .80$). The depression subscale, which was the only component of this measure used in the current study, similarly demonstrated good internal consistency in the participants measured ($\alpha_1 = .86$).

Recall Four multiple-choice questions concerning the content of the advertisement were used to assess participant's recall of the commercial stimuli at the beginning of data collection at time two. The questions assessed common elements of each commercial, so participants were asked the same questions regardless of the commercial they viewed. See Appendix C6 for the recall assessment.

Procedure

After receiving approval from the University's Institutional Review Board (IRB), four larger introductory level classes were recruited to participate in the study. Each was randomly assigned to a separate commercial condition. All students solicited were given the option to participate and were offered course credit for doing so. During the first data collection, the students were shown the assigned commercial in a mass administration and then administered measures of attitude, intent, source credibility and involvement. One week later, each class was revisited and asked to think about the commercial shown one week earlier and then to complete the same measures as before plus the assessment of recall described above. Participants provided their full names at times one and two so that their data could be matched upon entry.

III. RESULTS

Evaluating Commercial Manipulations

In order to ensure that the experimental manipulations were likely to function as intended the commercials described above were pilot tested. Four classes of undergraduate Introduction to Psychology students (not involved in the final investigation) viewed one commercial each and described it by endorsing their perceptions in terms of the following list of adjectives: sentimental, factual, rational, passionate, analytical, touching, tender, scientific, moving, logical, sensible, poignant, emotional, practical, compassionate, expressive, and personal. Participants rated these items on a scale of 1 (not at all) to 5 (very) for the commercial viewed. Differences between groups were evaluated using independent samples t-tests to compare various facets of participants' perceptions of the stimuli.

For example, when the commercials were examined across appeal type, the emotional commercials were rated as significantly more sentimental, passionate, tender, moving, emotional, and compassionate than the rational commercials (all $ps < .05$). When grouped according to source, the expert commercial was rated as significantly more factual, rational, analytical, scientific, logical, sensible, poignant, and practical than the consumer testimonial (all $ps < .05$), whereas the consumer was rated as significantly more personal ($p < .05$). The emotional consumer was rated as significantly more sentimental, passionate, touching, tender, moving, emotional, compassionate, and expressive than the

rational consumer (all ps < .05). The rational expert was rated as significantly more scientific than the emotional expert (p < .05), while the emotional expert trended toward a significant difference in being perceived as more compassionate than the rational expert (p = .057).

Thus, examining these various comparisons elucidated information about the way the stimuli were being perceived. Interpreted together, the overall results suggested that the manipulation was successful. Further, this conclusion supported the use of these commercial stimuli as independent variables in the experimental analyses for the remainder of the study.

Data Screening and Preliminary Considerations

After data collection was complete, the information from each survey was transferred to an electronic database. Fifty-five surveys (6620 data points) were double-entered for the purposes of determining a rate of errors in entry. This analysis revealed a negligible error rate in transcription (0.17%), thus double data entry was curtailed. Data were further screened for entries outside the range of acceptable values, and errors (N = 2 across all data collected) were corrected accordingly.

For the analyses that follow, a slight change from the proposal was issued due to a flaw in the data collection procedure. The original intention was to control for participant involvement (e.g., knowledge, interest, engagement, etc.) with CBT. A methodological confound was introduced, however, given that all data collection occurred *after* exposure to the experimental stimuli. Post-hoc consideration ultimately concluded that it was likely that this order influenced the measured levels of this variable, and thus rendered it inappropriate as a covariate for main analyses.

Group Differences at Time One

A one-way between-groups multivariate analysis of covariance (MANCOVA) was performed to investigate group differences in dependent measures at time 1. The independent variable was commercial condition, which consisted of four different groups: Emotional Expert, Rational Expert, Emotional Consumer, and Rational Consumer. All of the outcome measures administered at data collection time one were entered as dependent variables, including: Attitude to Brand, Advertisement Evaluation, Intent to Try CBT, Intent to Recommend CBT, Source Safety, Source Qualification, Source Dynamism, Treatment Evaluation, Level of Comfort with Treatment, and Negative Expectations for Treatment. Individuals' scores on the Depression scale of the DASS-21 were utilized as a covariate for this analysis.

Assumptions related to the covariate, including measurement, reliability, and linearity, were tested with no serious violations noted. Similarly, assumptions relevant to MANOVA, including linearity, homogeneity of variance-covariance matrices, multicollinearity, and equality of error variances, were satisfied. A number of the dependent variables were either skewed, kurtotic, or both, but were included without transformation because mean comparison analyses are generally considered sufficiently robust to withstand the use of non-normal data (Levy, 1980; Schmider et al., 2010; Tabachnick & Fidell, 2012). Additionally, 7 dependent variables were found to have 10 or fewer outlying data points on univariate analyses. Mahalanobis distance analyses of multivariate outliers revealed 7 cases with an unlikely combination of scores on dependent variables; they were removed from the final analysis.

The results of this analysis yielded a statistically significant omnibus effect of group assignment on the combined dependent variables when controlling for baseline depression score ($F\ (30, 1485) = 3.262$, $p < .001$; Wilks' Lambda = .829; $\eta_p^2 = .06$). When the dependent variables were considered separately via parallel univariate ANCOVA follow-up tests, statistically significant differences between groups emerged in the following variables: Attitude to Brand ($F\ (3, 515) = 2.706$, $p < .05$, $\eta_p^2 = .016$), Source Qualification ($F\ (3, 515) = 6.575$, $p < .001$, $\eta_p^2 = .037$), and Source Dynamism ($F\ (3, 515) = 5.899$, $p < .01$, $\eta_p^2 = .033$). Means for the multivariate analysis of time one data are listed in Table 3. Given that overall group and time effects were assessed in the mixed analyses below, individual pairwise comparisons are not presented here for these ANCOVA analyses. Results were tabulated, however, and closely parallel those for the repeated measures sample (which was expected given the high degree of overlap with the baseline sample).

Examining the Effects of Commercial Condition at Time One and Time Two

The dependent variables were further analyzed using univariate analyses, which accounted for participants' ratings at time one and time two. A mixed between-within subjects analysis of variance was used to assess the impact of the four commercial conditions (Emotional Expert, Rational Expert, Emotional Consumer, Rational Consumer) on participants' ratings of Attitude to Brand, Advertisement Evaluation, Intent to Try CBT, Intent to Recommend CBT, Source Safety, Source Credibility, Source Dynamism, Treatment Evaluation, Level of Comfort with Treatment, and Negative Expectations for Treatment (evaluated individually) across two time points (immediately after viewing and one week later). Depression scores from time one were entered as a covariate in each analysis. The relevant assumptions were evaluated, including measurement, sampling, independence of

observations, normality, homogeneity of variance, and homogeneity of covariance matrices. The analysis of Intent to Try CBT violated the assumption of homogeneity of error variance and covariance matrices as determined by the significance of Levene's test and Box's M. Levene's test was also significant in the analysis of Source Qualification ($p > .05$). However, these analyses are generally considered sufficiently robust to withstand violations of this magnitude given the large sample size (Tabachnick & Fidell, 2012), and so they are interpreted below. No other violations were noted. Means and standard errors related to the univariate analyses can be found in Tables 4 and 5.

Attitude to Brand There was no significant interaction between commercial condition and time ($p > .05$). There was a significant main effect of time ($F(1, 456) = 7.506$, $p < .01$; Wilks' Lambda = .984; $\eta_p^2 = .005$) such that the mean for Attitude to Brand at time one ($M = 21.855$, $SE = .346$) was higher than the mean at time two ($M = 21.112$, $SE = .346$). There was also a significant main effect of commercial condition ($F(3, 456) = 3.259$, $p < .05$; $\eta_p^2 = .021$). Pairwise comparisons revealed that participants who viewed the Rational Expert commercial ($M = 22.423$, $SE = .515$) reported significantly higher Attitude to Brand than those who viewed the Emotional Expert commercial ($M = 20.115$, $SE = .553$). There were no other differences between commercial conditions.

Advertisement Evaluation There was no significant interaction between commercial condition and time ($p > .05$). There was a significant main effect of time ($F(1,466) = 6.279$, $p < .05$; Wilks' Lambda = .987; $\eta_p^2 = .013$) such that, overall, participants evaluated the advertisement more favorably at time two ($M = 56.869$, $SE = .707$) than time one ($M = 55.449$, $SE = .692$). There was not a significant main effect of commercial condition on Advertisement Evaluation ($p > .05$).

Intent to Try CBT There was not a significant interaction between commercial condition and time ($p > .05$). There was a significant main effect of time ($F(1, 453) = 6.871$, $p < .001$; Wilks' Lambda = .985; $\eta_p^2 = .015$) indicating that participants generally reported less intention to pursue CBT as a treatment for depression at time two (M = 21.881, SE = .363) than at time one (M = 22.812, SE = .374). There was not a significant main effect of commercial condition on Intent to Try CBT.

Intent to Recommend CBT There was not a significant interaction between commercial condition and time ($p > .05$). Again, there was a significant main effect of time ($F(1,456) = 6.709$, $p < .05$; Wilks' Lambda = .986; $\eta_p^2 = .014$), which revealed that participants reported greater Intent to Recommend CBT at time one (M = 24.050, SE = .403) than time two (M = 23.089, SE = .377). There was not a significant main effect of commercial condition ($p > .05$).

Source Safety There was not a significant interaction between commercial condition and time ($p > .05$). There was a significant main effect of time ($F(1, 470) = 24.255$, $p < .001$; Wilks' Lambda = .951; $\eta_p^2 = .049$) such that, in general, sources were rated as more trustworthy at time one (M = 27.861, SE = .274) than time two (M = 26.582, SE = .267). There was not a significant main effect of commercial condition on ratings of Source Safety ($p > .05$).

Source Qualification There was not a significant interaction between commercial condition and time ($p > .05$). There was a significant main effect of time ($F(1,465) = 19.656$, $p < .001$; Wilks' Lambda = .959; $\eta_p^2 = .041$) such that the mean rating of Source Qualification at time one (M = 25.841, SE = .360) was higher than that at time two (M = 24.591, SE = .363). There was also a significant main effect of commercial condition on

Source Qualification (F (3, 465) = 3.387, $p < .001$; $\eta_p^2 = .021$). Subsequent tests failed to reveal significant differences between groups, however, thus indicating that the commercials performed similarly in terms of impacting this construct. It appears that the Rational Expert (M = 26.484, SE = .589) trended toward slightly higher ratings of Source Qualification than the Emotional Consumer (M = 24.669, SE = .508) and the Rational Consumer (M = 23.689, SE = .960) commercials.

Source Dynamism There was not a significant interaction between commercial condition and time ($p > .05$) or a significant main effect of time on ratings of Source Dynamism ($p > .05$). There was a significant main effect of commercial condition (F (3, 469) = 3.335, $p < .05$; $\eta_p^2 = .021$), although further pairwise comparisons revealed that there were no significant differences between groups. Examination of the means suggests that the Rational (M = 19.925, SE = .424) and Emotional (M = 20.211, SE = .460) Experts were trended toward being rated as slightly more dynamic in comparison to the Rational (M= 18.286, SE = .746) and Emotional (M = 18.703, SE = .394) Consumers.

Treatment Evaluation There was not a significant interaction between commercial condition and time ($p > .05$), and no significant main effects were detected ($ps > .05$).

Level of Comfort with Treatment There was not a significant interaction between commercial condition and time ($p > .05$) on Level of Comfort with Treatment. There was a significant main effect of time (F (1,466) = 15.320, $p < .001$; Wilks' Lambda = .968; η_p^2 = .032) indicating that participants reported greater levels of comfort at time one (M = 31.250, SE = .322) than time two (M = 30.370, SE = .354). There was also a significant main effect of commercial condition (F (3, 466) = 3.218, $p < .05$; $\eta_p^2 = .020$), and further testing revealed that participants who viewed the Rational Expert commercial (M = 31.766, SE =

.517) were significantly more comfortable with the treatment described than those who viewed the Emotional Expert (M = 29.669, SE = .560). There were no other significant differences between the commercial conditions.

Negative Expectations for Treatment There was not a significant interaction between commercial condition and time ($p > .05$) on Negative Expectations for Treatment, or a significant main effect of time ($p > .05$). There was a significant main effect of commercial condition ($F (3, 462) = 3.021$, $p < .05$; $\eta_p^2 = .019$). Pairwise comparisons revealed that participants who viewed the Rational Consumer commercial (M = 23.202, SE = .359) reported the most negative expectations related to CBT, though the only group with which there was a statistically significant difference was the Emotional Expert (M = 20.211, SE = .460).

Recall A one-way between-groups analysis of covariance was used to compare participants' recall across the four commercial conditions (Emotional Expert, Rational Expert, Emotional Consumer, Rational Consumer). Depression as measured at time one was entered as a covariate. There were no significant differences ($p < .05$) between commercial conditions on scores of recall measured one week after viewing.

Regression Analyses

Hierarchical multiple regression analyses were used to examine relationships among attitudes, behavioral intent, and perceptions of source credibility measured at time one, immediately following commercial viewing. Assumptions relevant to regression (e.g., linearity, homoscedasticity, multicollinearity, etc.) were evaluated prior to interpreting the analyses and revealed no significant violations. Variables used in each of the analyses were found to have a non-normal distribution, but probability and scatter plots revealed

that this is unlikely to have significantly impacted the results. Mahalonobis distance tests revealed 1 outlier in each of the analyses evaluating behavioral intent, which were removed in the final analyses. There were no multivariate outliers in the analyses of attitudes. Regression coefficients are listed in Tables 6 - 9.

The Effect of Attitudes on Behavioral Intent Hierarchical multiple regression was used to examine the effect of Attitude to Brand and Advertisement Evaluation on a viewer's Intent to Try CBT, after controlling for the influence of commercial source and appeal. Commercial source and commercial appeal were entered at Step 1 and explained 1.7% of the variance in Intent to Try (F (2, 552) = 4.901, $p < .05$). When Attitude Toward CBT and Advertisement Evaluation were entered at Step 2, the model as a whole explained 39.8% of the variance in Intent to Try CBT (F (4, 550) = 91.087, $p < .001$). Thus, the two measures of attitude explained an additional 38.1% of the variance after controlling for commercial source and appeal ($\Delta R^2 = .381$, ΔF (2, 550) = 174.197, $p < .001$). In the final model, commercial appeal, Attitude to Brand, and Advertisement Evaluation were statistically significant predictors of Intent to Try CBT. Participants who responded positively to both CBT and the commercial stimuli were more likely to report an intention to try CBT should they perceive themselves as depressed.

Another hierarchical multiple regression examined the effect of Attitude to Brand and Advertisement Evaluation on a viewer's Intent to Recommend CBT, after controlling for the influence of commercial source and appeal. Commercial source and appeal were entered at Step 1 and explained 0.6% of the variance in Intent to Recommend (model $p > .05$). Attitude to Brand and Advertisement Evaluation were once again entered at Step 2, and the model as a whole explained 37.5% of the variance in Intent to Recommend CBT (F

(4, 551) = 82.811, $p < .001$). The two measures of attitude explained an additional 37.0% of variance after controlling for commercial condition ($\Delta R^2 = .370$, ΔF (2, 551) = 163.147, $p < .001$). In the final model, the attitude measures were the only statistically significant variables, indicating that more positive attitudes toward CBT and the commercial correspond with greater intent to recommend CBT to someone in need.

The Effect of Source Credibility on Attitudes Hierarchical multiple regression was also used to examine the effect of source credibility (Safety, Qualification, Dynamism) on Attitude to Brand, after controlling for the influence of commercial source and appeal. Commercial source and commercial appeal were entered in Step 1 and explained just 1.4% of the variance in Attitude to Brand (F (2, 560) = 3.991, $p < .05$). The variables that comprise source credibility (Safety, Qualification, Dynamism) were entered in Step 2, and the final model accounted for 24.7% of the variance in Attitude Toward CBT (F (5, 557) = 38.423, $p < .001$). The measures of source credibility explained an additional 24.2% of the variance in Attitude to Brand after controlling for commercial source and appeal ($\Delta R^2 = .242$, ΔF (3, 557) = 60.529, $p < .001$). In the final model, all five of the variables entered were significant and are listed in order of highest to lowest beta value: Dynamism ($\beta = .216$, $p < .001$), Safety ($\beta = .199$, $p < .001$), Qualification ($\beta = .183$, $p < .01$), Source ($\beta = .149$, $p < .001$), and Appeal ($\beta = .117$, $p < .01$). These data suggest that participants who respond favorably to the source (in terms of all variables above) are more likely to respond favorably to CBT.

Hierarchical multiple regression was also used to examine the effect of source credibility (Safety, Qualification, Dynamism) on Advertisement Evaluation, after controlling for commercial source and appeal. Commercial source and appeal were entered in Step 1

and explained just 0.4% of the variance in Advertisement Evaluation (model $p > .05$). The variables assessing source credibility were entered in Step 2, and the completed model accounted for 39.2% of the variance in source credibility ($F (5, 560) = 72.248$, $p < .001$). The addition of the source credibility variables accounted for an additional 38.8% of the variance in the final model ($\Delta R^2 = .388$, $\Delta F (3, 560) = 119.198$, $p < .001$). Four out of five of the variables entered were significant in the final model and are listed in order of highest to lowest beta value: Dynamism ($\beta = .308$, $p < .001$), Safety ($\beta = .273$, $p < .001$), Qualification ($\beta = .179$, $p < .01$), and Source ($\beta = .130$, $p < .001$). It appears as though participants who reported a positive response to the source also responded positively to the commercial as a whole.

The Effect of Attitudes on Recall Analysis of Recall revealed that the majority of participants measured at time two missed one (N = 211) or none (N = 232) of the questions assessing this construct. Therefore, Recall was coded into a categorical variable of those who either answered all of the questions correctly (N = 232) and those who missed one or more questions (N = 240). Binary logistic regression was used to assess the impact of commercial source, commercial appeal, Attitude to Brand, and Advertisement Evaluation on the likelihood that viewers would answer all of the questions correctly. The full model was not statistically significant (χ^2 (4, N = 458) = 2.411, $p > .05$), indicating that commercial condition and attitudinal response did not predict viewers' ability to recall details of the commercial they viewed.

IV. DISCUSSION

Overall, there was not evidence to suggest that one particular appeal or source works better than another in terms of influencing attitudes, behavioral intent, and recall. The hypothesis (H_1) that viewers would respond more favorably to the emotional appeals in terms of attitude, intent, and recall was not supported; neither of the emotional commercials outperformed their rational counterparts on any of the variables assessed. The hypothesis (H_2) predicting that viewers would report more positive attitudes and greater intent and recall in response to consumer sources also lacked support in the current study. The two consumer conditions never outperformed the experts in terms of positive attitude, intent, and recall. In fact, the only consumer commercial to demonstrate statistically significant mean differences with another commercial condition was the Rational Consumer, which viewers responded to with greater negative expectations for treatment when compared to viewers in the Emotional Expert condition.

There was also no support for the hypothesis that, of the four commercials presented, the Emotional Consumer would have a significantly greater impact on attitude, intent, and recall than the other three commercials (H_3). Generally speaking, there were few notable differences among the four commercial conditions, which suggests that viewer response to information concerning CBT as a treatment for depression occurs more or less independently of how that information is conveyed. When there were significant differences, they indicated that viewers responded more favorably to the Rational Expert

message in terms of Attitude to Brand/CBT and Level of Comfort with Treatment. While additional research investigating the relative advantages of Rational Expert messages is certainly needed, these preliminary findings bode well for the feasibility and implementation of direct-to-consumer advertisements for psychotherapeutic services (i.e., experts in the field are an accessible and cost efficient option).

In terms of changes in the dependent variables over time, repeated measure analyses revealed that viewers generally reported more positive Attitude to Brand, greater Intent to Try and Recommend, and higher ratings of Source Safety, Source Qualification, and Level of Comfort with Treatment at time one than time two. Advertisement Evaluation is the only variable in which ratings tended to increase from time one to time two, and there were not significant differences between data collection points in terms of Source Dynamism, Treatment Evaluation, and Negative Expectations for Treatment.

In terms of source credibility, data from the current study did not support the hypothesis that the expert would receive more favorable evaluation than the consumer in this domain (H_4). Though the univariate mean comparisons concerning Source Qualification and Source Dynamism suggested that there were significant differences, follow-up analyses indicated that these are likely the result of sampling error and not meaningful differences between any of the groups. While these results suggest that viewers' perception of spokespeople occurred independently of the experimental manipulation, the regression analyses indicate that the way in which a viewer responds to the spokesperson is important in determining the overall effectiveness of the message.

Regression analyses provided support for the hypotheses that higher attitude scores would predict higher intent to use and recommend CBT (H_5) and that higher source

credibility scores would predict more positive attitudes toward the advertisement and CBT (H_6). The hypothesis that higher attitude scores will predict better recall of the commercial (H_7) was not supported, although a ceiling effect in recall was notable and artificial categorization of data was employed to examine differences. These results highlight the importance of source variables as much of the variance in viewers' attitudes toward CBT and the advertisement was accounted for by viewers' evaluations of the source. Source evaluations are especially significant when one considers that regression analyses also revealed that attitudes play a very significant role in viewers' reports of behavioral intent.

The apparent influence of attitudes on behavioral intent related to psychotherapeutic service selection speaks more broadly to the promise of direct-to-consumer advertising as a dissemination tool. Although research on the dissemination of evidence based psychological services continues to examine the most effective methods by which to influence practitioners (Harned, Dimeff, Woodcock, & Contreras, 2013; Rawson et al., 2013), many in the field are starting to recognize the utility of engaging potential consumers (Sanders & Kirby, 2012; Santucci, McHugh, & Barlow, 2012; Taylor & Abramowitz, 2013). Gallo, Comer, and Barlow (2013), for example, recently published a review that outlines several mechanisms through which psychologists might reach out to consumers. They suggest that professional conferences should work to include consumers who might benefit from the information available there, and point to the Internet as another effective tool with which to provide information to the public. They also encourage psychologists to interact with the public via social media and consider the presence of experts on widely viewed television programs and print medias (Gallo et. al, 2013).

While these are all promising ideas, as Gallo et al. (2013) aptly mention, a potential barrier lies in the fact that many require the initiative of the consumer to both recognize that there is a problem and to seek additional information. The current study fills an important gap in the literature by illuminating methods by which one might influence this initiation, prompting consumers to seek out additional information concerning emotional/behavioral problems and effective treatments. Additionally, attitudes are a popular topic of inquiry in the field of advertising because of the effect they have on consumer behavior (Spears & Singh, 2004), and this work suggests that the commercials evaluated may be differentially effective in influencing consumer attitudes. Thus, understanding the nature of this differential effect and methods to enhance impact on consumer attitudes through the form of advertisement employed are topics worthy of further investigation. The current study also offers a framework, developed after careful consideration of marketing/advertising literature, from which to develop this future research evaluating the most effective messages with which to influence consumer behavior in orientation to mental health services.

Limitations

Although this work is among the first of its kind, there are several limitations that facilitate considerations for improvement in future research. Including a control group would provide information about whether or not the advertisements had an effect above and beyond "exposure as usual." The current study also failed to control for prior exposure to therapy or other mental health services, which may have had a significant influence on people's attitudes and intent concerning psychotherapeutic treatments. The present study would have also benefitted from an improved measure of recall given the options for

analyses were limited by the brevity and simplicity of the measure used herein. Though beyond the scope of the current work, follow-up on measures of behavioral intent, such as actual Internet searches and/or service utilization, would have provided valuable information that measures of intent could not capture. Finally, the current study was conducted using a college sample and therefore may have limited generalizability when considering less advantaged and/or underserved populations. It is possible that college students responded more favorably to "expertise" and a "data driven" approach given the academic environment in which they function.

Future Research

Given that this is a burgeoning area of inquiry, possibilities for additional research are plentiful. Any number of commercial manipulations (e.g., settings, visual representations of services, actor characteristics) might be examined. The commercials implemented in this study were constant for everything other than the content and source credentials. Furthermore, comparing different platforms (e.g., Internet, radio, mailers) for delivering messages about psychological services would aid in determining where efforts would be best spent and/or if greater strength of effect could be demonstrated in a particular medium. Finally, it is possible to expand further upon the information communicated about specific mental health services and include manipulation of this content as an independent variable. Progress in any or all of these areas of inquiry may eventually lead to studies that are able to elucidate the intricate relationships between constructs to understand real mental health consumer behaviors in terms of treatment awareness, attitude, and selection.

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LIST OF APPENDICES

APPENDIX A: STATISTIC TABLES

Table 1. Descriptive Statistics Pilot Data

Variable	Emo. Expert Mean (SD)	Rat. Expert Mean (SD)	Emo. Consumer Mean (SD)	Rat. Consumer Mean (SD)
Sentimental	3.20 (1.12)	2.98 (1.23)	3.24 (1.11)	2.70 (1.09)
Factual	3.58 (0.95)	3.70 (1.21)	3.01 (1.12)	3.03 (1.08)
Rational	3.54 (0.89)	3.50 (0.98)	3.03 (0.99)	3.16 (1.01)
Passionate	3.17 (1.26)	3.14 (1.11)	3.35 (1.28)	2.55 (1.23)
Analytical	2.95 (0.98)	3.02 (1.02)	2.55 (1.07)	2.49 (1.06)
Touching	2.70 (1.14)	2.77 (1.20)	3.02 (1.33)	2.52 (1.24)
Tender	3.11 (1.19)	2.95 (1.31)	3.23 (1.18)	2.51 (1.18)
Scientific	3.06 (1.13)	3.61 (1.13)	2.43 (1.17)	2.60 (1.20)
Moving	2.59 (1.08)	2.55 (1.13)	2.73 (1.18)	2.29 (1.09)
Logical	3.51 (0.94)	3.68 (1.05)	2.93 (1.17)	2.97 (1.10)
Sensible	3.44 (0.93)	3.57 (0.90)	3.06 (1.12)	3.34 (1.03)
Poignant	2.83 (0.84)	2.95 (0.77)	2.64 (1.07)	2.49 (1.09)
Emotional	2.84 (1.78)	2.75 (1.16)	3.34 (1.27)	2.73 (1.35)
Practical	3.40 (1.04)	3.48 (0.93)	2.91 (1.04)	2.97 (1.04)
Compassionate	3.42 (1.20)	3.00 (1.10)	3.25 (1.16)	2.73 (1.17)
Expressive	2.93 (1.22)	2.95 (1.01)	3.34 (1.29)	2.84 (1.18)
Personal	2.93 (1.37)	2.79 (1.36)	3.29 (1.37)	3.24 (1.28)

Table 2. Sample Characteristics

	Time One (N = 579)		Time Two (N = 482)	
Age	M= 19.37, SD= 2.05		M= 19.31, SD= 1.76	
Gender				
Female	359	(62.0%)	299	(62.0%)
Male	219	(37.8%)	182	(37.8%)
Other	1	(0.2%)	1	(0.2%)
Ethnicity				
Caucasian	488	(77.4%)	372	(77.2%)
African American	98	(16.9%)	86	(17.8%)
Hispanic	12	(2.1%)	5	(1.0%)
Asian	7	(1.2%)	7	(1.5%)
Multi-ethnic	8	(1.4%)	7	(1.5%)
Other	6	(1.0%)	5	(1.0%)
Commercial Conditions				
Emotional Expert	153	(26.4%)	122	(25.3%)
Rational Expert	174	(30.1%)	146	(30.3%)
Emotional Consumer	194	(33.5%)	167	(34.6%)
Rational Consumer	58	(10.0%)	47	(9.8%)

Table 3. Multivariate Analyses: Means for Time One Data

Variable	Emo. Expert Mean (SD)	Rat. Expert Mean (SD)	Emo. Consumer Mean (SD)	Rat. Consumer Mean (SD)
Att. to Brand*	20.31 (6.09)	22.22 (6.54)	21.53 (6.76)	22.42 (5.88)
Ad. Eval.	52.94 (12.81)	56.80 (13.98)	55.60 (12.81)	54.89 (14.50)
Intent to Try	21.41 (7.03)	23.21 (7.36)	21.01 (6.89)	23.74 (6.93)
Intent to Rec.	23.04 (7.64)	24.69 (7.59)	23.90 (7.41)	23.53 (7.92)
Safety	27.19 (5.56)	28.43 (5.25)	27.60 (5.38)	27.43 (5.60)
Qualification***	26.76 (6.85)	26.89 (6.97)	23.99 (7.00)	24.40 (8.18)
Dynamism**	20.49 (5.71)	20.21 (5.14)	18.29 (5.41)	18.47 (5.71)
Treat. Eval.	85.83 (18.98)	89.91 (19.45)	88.71 (18.12)	87.66 (20.47)
Lev. of Comfort	29.89 (6.14)	31.55 (6.19)	31.59 (6.08)	30.45 (6.59)
Neg. Expect.	21.31 (4.71)	21.14 (4.78)	21.27 (4.63)	23.00 (5.20)

*p < .05, **p < .01, ***p < .001

Table 4. Univariate Analyses: Main Effect of Group

Variable	Emo. Expert Mean (SE)	Rat. Expert Mean (SE)	Emo. Consumer Mean (SE)	Rat. Consumer Mean (SE)
Att. to Brand	20.12* (.55)	22.42* (.52)	21.75 (.47)	21.65 (.90)
Ad. Eval.	54.47 (1.16)	58.23 (1.07)	57.09 (1.00)	54.84 (1.88)
Intent to Try	21.31 (.60)	23.38 (.55)	22.00 (.51)	22.69 (.96)
Intent to Rec.	22.95 (.63)	24.95 (.58)	23.66 (.54)	22.72 (1.03)
Safety	26.76 (.43)	27.92 (.40)	27.80 (.37)	26.40 (.70)
Qualification	26.02 (.59)	26.48 (.55)	24.67 (.51)	23.69 (.96)
Dynamism	20.21 (.46)	19.93 (.42)	18.70 (.39)	18.29 (.75)
Treat. Eval.	86.99 (1.86)	92.77 (1.69)	89.96 (1.57)	87.84 (3.01)
Level of Com.	29.67* (.56)	31.77* (.52)	31.52 (.48)	30.28 (.92)
Neg. Expect.	21.01* (.39)	21.33 (.36)	21.38 (.33)	23.20* (.64)

*p < .05, **p < .01, ***p < .001

Table 5. Univariate Analyses: Main Effect of Time

Variable	Time One Mean (SE)	Time Two Mean (SE)
Attitude to Brand**	21.86 (.35)	21.11 (.35)
Ad. Evaluation*	55.45 (.69)	56.87 (.71)
Intent to Try***	22.81 (.37)	21.88 (.36)
Intent to Recommend*	24.05 (.40)	23.09 (.38)
Source Safety***	27.86 (.27)	26.58 (.27)
Source Qualification***	25.84 (.36)	24.59 (.36)
Source Dynamism	19.42 (.29)	19.14 (.28)
Treatment Evaluation	88.98 (1.00)	89.79 (1.19)
Level of Comfort***	31.25 (.32)	30.37 (.35)
Negative Expectations*	21.72 (.24)	21.74 (.26)

*p < .05, **p < .01, ***p < .001

Table 6. Attitudes Predicting Intent to Try CBT

Variable	β	t	sr^2	R	R^2	ΔR^2
Step One				.132	.017	.017**
Appeal	.138	3.108**	.131			
Source	.026	.580	.025			
Step Two				.631	.398	.381***
Appeal	.073	2.097*	.089			
Source	-.006	-.187	-.008			
Att. to Brand	.318	6.583***	.270			
Ad. Eval.	.349	7.243***	.295			

Note: N= 563,*p < .05, **p < .01, ***p < .001

Table 7. Attitudes Predicting Intent to Recommend CBT

Variable	β	t	sr^2	R	R^2	ΔR^2
Step One				.075	.006	.006
Appeal	.073	1.638	.069			
Source	-.006	-.134	-.006			
Step Two				.613	.375	.370***
Appeal	.009	.265	.011			
Source	-.038	-1.065	-.045			
Att. to Brand	.315	6.397***	.263			
Ad. Eval.	.343	6.985***	.285			

Note: N= 565,*p < .05, **p < .01, ***p < .001

Table 8. Source Credibility Predicting Attitude Toward CBT

Variable	β	t	sr^2	R	R^2	ΔR^2
Step One				.119	.014	.014*
Appeal	.121	2.741**	.115			
Source	.066	1.488	.063			
Step Two				.506	.256	.242***
Appeal	.117	3.049**	.128			
Source	.149	3.758***	.157			
Safety	.199	3.834***	.160			
Qualification	.183	3.107***	.131			
Dynamism	.216	4.827***	.200			

Note: N= 567,*p < .05, **p < .01, ***p < .001

Table 9. Source Credibility Predicting Advertisement Evaluation

Variable	β	t	sr^2	R	R^2	ΔR^2
Step One				.063	.004	.004
Appeal	.066	1.485	.062			
Source	.028	.624	.026			
Step Two				.626	.392	.388***
Appeal	.061	1.7768	.075*			
Source	.130	3.628***	.152			
Safety	.273	5.826***	.239			
Qualification	.179	3.379**	.141			
Dynamism	.308	7.632***	.307			

Note: N= 571,*p < .05, **p < .01, ***p < .001

APPENDIX B: COMMERCIAL SCRIPTS

Appendix B.

Rational Expert

"Hello. My name is Dr. [actor name] and I have been practicing as a clinical psychologist for several years. I want to talk to you about depression, which is a growing problem among citizens of the United States. Cognitive-behavioral therapy, or CBT, is a customizable, therapeutic approach to dealing with depression, and there is strong scientific evidence that it works. In fact, clinical trials suggest that CBT is the most effective treatment for depression, at least as good, or *better* than medication. Treatment only takes about four months, but the results last well beyond that, making CBT a cost-effective option as well. Providers are easy to find using the "find a therapist" feature on ABCT.org. If you or someone you love is dealing with depression, do something about it. Contact a professional about cognitive-behavioral therapy, because we know it works."
(0:55)

Emotional Expert

"Hello. My name is Dr. [actor name] and I have been practicing as a clinical psychologist for several years. I want to talk about depression, a growing problem that may have already affected you or someone you love. I specialize in treating depression with Cognitive-Behavioral Therapy, or CBT. In CBT, the therapeutic relationship is built in an atmosphere of trust and respect. Professionals like myself are trained to listen so that your unique needs are understood and met during treatment. If you're suffering from depression, I'm confident that CBT can help reclaim your life. You can experience happiness and pleasure again. You can feel better. Don't suffer from depression any longer. Locate a CBT provider near you on ABCT.org. We're here, and we can help."
(0:50)

Rational Consumer

"A couple years ago, I noticed that I was feeling sad more often than not and I had little energy or desire to do the things I used to enjoy. I was depressed and I needed to do something about it. I did some research and found that cognitive-behavioral therapy, or CBT, is an effective way to reduce or eliminate the symptoms of depression. It works as well or *better* than medication in clinical trials. It was easy to find a provider near me on ABCT.org, and my therapist was able to customize treatment to meet my needs. I attended sessions for about four months and it was definitely worth the time and money. I haven't relapsed in over two years. CBT helped me get through a difficult time, and I would recommend it to anyone I knew who was struggling with depression and was ready to feel better."
(0:51)

Emotional Consumer

"A couple years ago, I noticed that I wasn't enjoying things as much as I used to and I had this feeling of hopelessness that was hard to escape. I thought things were never going to get better and then one day I heard about cognitive-behavioral therapy, or CBT, from a friend of mine. I found a local mental health professional that specialized in CBT using the "find a therapist" feature on ABCT.org. My therapist was really easy to talk to. I felt like she really understood where I was coming from and worked hard to make sure therapy fit my life. CBT helped me get my life back. Now I can enjoy running, dancing, and hanging out with friends just like I used to. I have hope again, and that's a great feeling. I would recommend CBT to anyone who is suffering from depression and is ready to feel better. "
(0:49)

APPEDIX C: MEASURES

Appendix C1.

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

Appendix C2.

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 depressed 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 depressed 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

Appendix C3.
Please read the following questions and circle the answer that best reflects your opinion of the treatment presented in the commercial you just watched. This is not a test and there are no right or wrong answers.

1. Overall, how acceptable is the proposed treatment?

1	2	3	4	5	6	7
not at all			somewhat			very much

2. How ethical is the treatment?**

3. How effective do you think this treatment might be?

4. How knowledgeable do you think the psychologist is?

5. How successful do you think this treatment would be in symptom reduction?

6. How confident would you be in recommending this treatment to a friend who experiences similar problems?

7. How likely is it that the patient in this scenario would put forth the necessary time and effort outside of session?

8. How efficient is the proposed treatment?

*9. How stressful would participation in the proposed treatment be for the patient?

*10. How stressful would the proposed treatment be for others involved in the treatment process (family, friends, etc.)?

11. How much does this treatment fit with your personal ideas about what treatment should be?

*12. How intrusive is the proposed treatment?

13. How much improvement could be expected as a result of this treatment?

1	2	3	4	5	6	7
none			a moderate amount			a lot

14. How humane is the proposed treatment?

15. If this treatment was suggested to you how likely would you be to use it if: a close friend/co-worker who had never used it suggested it?

16. If this treatment was suggested to you how likely would you be to use it if: a close friend/co-worker who had used it and reported a good experience suggested it?

17. Are the ultimate goals of this treatment worth the cost (time, money, etc.)?

*18. How uncomfortable would the patient feel as a result of this treatment?

19. How friendly does the psychologist seem?

20. If you had this difficulty, and no other information about the treatment other than what you just heard, how likely would you be to pursue this treatment as your first choice?

21. How fast do you feel you improvement would occur as a result of this treatment?

1	2	3	4	5	6	7
very slowly			moderately			very quickly

22. How positively would participation in this treatment affect the patient's everyday life?

*23. How negatively would participation in this treatment affect the patient's everyday life?

24. How safe does the treatment seem?

*25. How likely would you be to seek out more information about this treatment if you were experiencing similar problems?

1	2	3	4	5	6	7
not at all likely			somewhat			very likely

26. How long do you think that the effects of this treatment would last after the patient finished therapy?

27. How positive do you feel the long-term effects of this treatment would be?

28. How appealing do you find the proposed treatment?

29. What is your emotional reaction to this treatment?

1	2	3	4	5	6	7
very negative			neutral			very positive

30. How well does this treatment fit in with your existing outlook on life?

31. How do you think this treatment would compare to other treatments you have seen or heard about?

1	2	3	4	5	6	7
much worse			about the same			much better

32. How do you think this treatment would compare to medication?

1	2	3	4	5	6	7
much worse			about the same			much better

**Remaining questions use the same response option as Item 1 except where noted.

Appendix C4.

Described the spokesperson in the commercial you just watched.

Unsafe						Safe
1	2	3	4	5	6	7

Unjust						Just
1	2	3	4	5	6	7

Cruel						Kind
1	2	3	4	5	6	7

Unfriendly						Friendly
1	2	3	4	5	6	7

Dishonest						Honest
1	2	3	4	5	6	7

Untrained						Trained
1	2	3	4	5	6	7

Inexperienced						Experienced
1	2	3	4	5	6	7

Unskilled						Skilled
1	2	3	4	5	6	7

Unqualified						Qualified
1	2	3	4	5	6	7

Uninformed						Informed
1	2	3	4	5	6	7

Meek						Aggressive
1	2	3	4	5	6	7

Hesitant						Emphatic
1	2	3	4	5	6	7

Timid						Bold
1	2	3	4	5	6	7

Passive						Active
1	2	3	4	5	6	7

Tired						Energetic
1	2	3	4	5	6	7

Appendix C5.

Cognitive Behavioral Therapy (CBT)

important ___ : ___ : ___ : ___ : ___ : ___ : ___ unimportant*

of no concern ___ : ___ : ___ : ___ : ___ : ___ : ___ of concern to me

irrelevant ___ : ___ : ___ : ___ : ___ : ___ : ___ relevant

means a lot to me ___ : ___ : ___ : ___ : ___ : ___ : ___ means nothing to me*

useless ___ : ___ : ___ : ___ : ___ : ___ : ___ useful

valuable ___ : ___ : ___ : ___ : ___ : ___ : ___ worthless*

trivial ___ : ___ : ___ : ___ : ___ : ___ : ___ fundamental

beneficial ___ : ___ : ___ : ___ : ___ : ___ : ___ not beneficial*

matters to me ___ : ___ : ___ : ___ : ___ : ___ : ___ doesn’t matter*

uninterested ___ : ___ : ___ : ___ : ___ : ___ : ___ interested

significant ___ : ___ : ___ : ___ : ___ : ___ : ___ insignificant*

vital ___ : ___ : ___ : ___ : ___ : ___ : ___ superfluous*

boring ___ : ___ : ___ : ___ : ___ : ___ : ___ interesting

unexciting ___ : ___ : ___ : ___ : ___ : ___ : ___ exciting

appealing ___ : ___ : ___ : ___ : ___ : ___ : ___ unappealing*

mundane ___ : ___ : ___ : ___ : ___ : ___ : ___ fascinating

essential ___ : ___ : ___ : ___ : ___ : ___ : ___ nonessential*

undesirable ___ : ___ : ___ : ___ : ___ : ___ : ___ desirable

wanted ___ : ___ : ___ : ___ : ___ : ___ : ___ unwanted

not needed ___ : ___ : ___ : ___ : ___ : ___ : ___ needed

Appendix C6.

Test of Recall

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 color was the spokesperson's hair?

a. Blonde
b. Brown
c. Red
d. Blue

What website did the advertisement mention?

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

VITA

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EDUCATION

Ph.D. Candidate in Clinical Psychology
University of Mississippi
Dissertation Defended: June 3, 2014
Dissertation Title: *Direct-To-Consumer Advertising of Cognitive Behavioral Therapy for the Treatment of Depression*
Committee: John Young, Ph.D. (Chair)
Alan Gross, Ph.D.
Dani Maack, Ph.D.
Victoria Bush, Ph.D. (Professor of Marketing)

M.A. in Clinical Psychology
University of Mississippi
Degree Awarded: May 2011
Thesis Title: *Developmental Considerations in the Social Acceptance and Interaction of Children With Disabilities in Inclusive Classrooms*
Committee: Karen Christoff, Ph.D. (Chair)
John Young, Ph.D.
Beth Boerger, Ph.D.

B.A. in Psychology, with Honors
University of Nebraska – Lincoln
Degree Awarded: May 2008
Honor's Thesis Advisor: Gustavo Carlo, Ph.D.
Thesis Title: *Cross-Cultural Examination of How Differing Parenting Practices in European and Latino Cultures Influence Prosocial Tendencies Within Their Children.*

CERTIFICATIONS/LICENSURE

Examination for Professional Practice of Psychology (EPPP)
Kentucky Board of Psychology
April 2012
Passed at Doctoral Level

CLINICAL EXPERIENCE

Texas Children's Hospital: Pediatric Psychology Intern

Baylor College of Medicine Menninger Department of Psychiatry and Behavioral Sciences
Supervisors: Danita Czyzewski, Ph.D. and Mariella Self, Ph.D.
July 2013- Present

- Conduct screenings and intake interviews
- Provide outpatient therapy for children and families referred from a variety of pediatric subspecialties (e.g., Gastroenterology, Neurology, Pulmonary, Cardiology, Rheumatology, Physical Medicine & Rehabilitation, Pain, Dermatology, etc.)
- Provide inpatient consultation services for specialties listed above
- Provide services in multidisciplinary clinic for young children who are failing to thrive
- Teach children to swallow pills using a brief behavioral protocol
- Attend rounds and treatment team meetings
- Participate in weekly journal club

Baylor Psychiatry Clinic/Student Counseling Services: Psychology Intern

Baylor College of Medicine Menninger Department of Psychiatry and Behavioral Sciences
Supervisors: Karen Lawson, Ph.D., MPH and Melinda Stanley, Ph.D.
July 2013- Present

- Conduct screenings and intake interviews
- Provide individual therapy to students at Baylor College of Medicine and members of the Houston community
- Attend weekly individual supervision meetings

Psychological Services Center: Clinic Assistant

University of Mississippi
Supervisor: Scott Gustafson, Ph.D.
July 2011- June 2013

- Monitored clinic activity and record keeping of fellow graduate students
- Worked with the director to ensure that our policies and procedures are efficient and up to date
- Helped the clinic transition to an entirely electronic record system
- Registered the psychology department as a state certified provider of continuing education and organized an opportunity for local professionals to earn continuing education credits
- Developed new print marketing materials and distributed them to health agencies in the community
- Worked to acquire grant funding for more therapy resources (e.g., treatment manuals)

Psychological Services Center: Graduate Therapist

University of Mississippi
Supervisors: Alan Gross, Ph.D.; Stefan Schulenberg, Ph.D.; Kelly Wilson, Ph.D.; John Young, Ph.D.
August 2009- June 2013

- Conducted screenings and intake interviews
- Saw clients for individual therapy sessions
- Attended weekly supervision meetings
- Administered psychosocial assessment batteries to children and adults with suspected learning, attention, and/or psychological difficulties

Gulf Oil Spill Grant Program: Site Liaison

University of Mississippi and MS Department of Mental Health
Supervisor: Stefan Schulenberg, Ph.D.
June 2011- June 2012

- Worked with several mental health agencies on Mississippi's Gulf Coast to ensure that they were collecting data in accordance with the grant
- Used problem solving and creative thinking skills to conduct research in a community setting
- Communicated with each site regularly and provided materials and feedback as needed

Delta Autumn Consulting: Social Security/Disability Assessment

Oxford, MS
Supervisor: John Young, Ph.D.
September 2011

- Administered a standard battery of psychological tests for the Social Security offices, which was used in determinations of individuals' disability status

Region IV Mental Health: Adult Therapist

Hernando, MS
Supervisor: Scott Gustafson, Ph.D.
August 2010- July 2011

- Conducted screenings and intake interviews
- Saw clients for individual therapy sessions
- Attended weekly supervision meetings

Student Disability Services: Verification Specialist

University of Mississippi
Supervisor: Stefan Schulenberg, Ph.D.
August 2010- December 2010

- Reviewed students' assessment reports and protocols to verify the need for academic accommodations
- Conducted brief intake interviews
- Spoke with various psychologists and physicians regarding the need for academic accommodations

Center for Autism Spectrum Disorders: Behavior Technician

University of Nebraska Medical Center
Supervisor: Wayne Fisher, Ph.D.
July 2010

- Collected primary and reliability data during intensive behavioral interventions in the severe behavior unit
- Memorized the coding procedure for three patients and used it to record their behavior during sessions

The Baddour Center: Education and Research Intern

Senatobia, MS
Supervisor: Shannon Hill, Ph.D.
July 2009- June 2010

- Conducted individual and group therapy sessions for adults with mild to moderate intellectual disabilities
- Administered assessments of intellectual, adaptive, and neurological functioning

Applied Behavior Analyst

Lincoln, NE
Supervisor: Angela Brown, M.A.
April 2006- July 2008

- Used the Lovaas model of early intervention for autism spectrum disorders
- Taught academic curriculum using discrete trial training
- Implemented behavior modification procedures
- Wrote academic and behavior modification programs
- Collected, analyzed, and reported progress data on a weekly basis
- Trained new staff

RESEARCH EXPERIENCE

Children's Nutrition Research Center

Supervisor: Teresia O'Connor, M.D.
2013 – Present

- Currently working on a project examining the effect of parent's outcome expectations for children TV viewing on parenting practices and child TV viewing

Psychological Services Center

Supervisor: Scott Gustafson, Ph.D.
2011 – Present

- Currently leading a project examining qualitative and quantitative data on the referral process and word of mouth advertising surrounding mental health service selection
- Collected and analyzed data on the effect information about treatment has on attrition rates as part of a multi-site study

- Worked with EEG equipment to run a multiple baseline study that used operant conditioning procedures to increase alpha waves in participants

S.I.T.H. (Scientific Infusion That Helps) Research Lab

Supervisor: John Young, Ph.D.
2008 – Present

- Currently leading a project to examine effective ways to disseminate psychological treatment information to college students using television commercials
- Worked collaboratively with several universities and mental health agencies to examine treatment satisfaction
- Administered behavioral health screenings to elementary, middle, and high school students in Mississippi as part of the Behavioral Vital Signs program
- Watched videotaped supervision meetings to inform the development of a supervision coding instrument

University of Mississippi Clinical Disaster Research Collaborative (UM-CDRC)

Supervisor: Stefan Schulenberg, Ph.D.
2011 – 2013

- Developed a report on how working as a university based liaison to community mental health agencies in grant-funded research is a valuable training opportunity
- Examined clinicians' reported intervention strategies to help define "treatment as usual"
- Managed and coordinated community mental health agencies' data collection efforts

The Baddour Center

Supervisor: Shannon Hill, Ph.D.
2009 – 2010

- Transcribed videotaped interviews of caretakers describing how they chose residential facilities for their children with intellectual disabilities

Get Fit! Research Lab

Supervisor: Karen Christoff, Ph.D.
2008 – 2010

- Coordinated data collection at elementary schools
- Collected sociometric data to from elementary students and adults with mild to moderate intellectual disabilities
- Collected observational data on the peer interaction and activity levels of preschool and elementary school children
- Administered surveys examining the weight attitudes, body image, diet, and activity levels of undergraduate students

Developmental Research Lab

Supervisor: Rebecca Goodvin, Ph.D.

2006 – 2007

- Administered behavioral measures of self-concept and self-evaluation to preschool aged children

TEACHING EXPERIENCE

Guest Lectures: Operant Conditioning & Assessment/Diagnosis

Abnormal Psychology at the University of Mississippi

Spring 2012

Guest Lecture: Classical Conditioning

Learning and Behavior at the University of Mississippi

Spring 2012

Staff Training: How to Deal with Residents who Push Your Buttons

The Baddour Center

July 2009- June 2010

Graduate Assistant: Self-Paced Abnormal Psychology

University of Mississippi

August 2008- May 2009

Graduate Assistant: Self-Paced Introduction to Psychology

University of Mississippi

August 2008- May 2009

PRESENTATIONS

Gustafson, S. & **Flegle, L** (2012, December). *Working with People with Mental Illness in Emergency Situations.* Invited presentation for University of Mississippi Police Department, University, MS.

Flegle, L. (2012, October). *Learning Disabilities: Effective Strategies for Identifying and Working with Students.* Invited presentation for University of Mississippi Athletic Tutor Program, University, MS.

Flegle, L. (2012, August). *Site Liaisons: Working as Both Scientist and Practitioner.* In S. E. Schulenberg (Chair), Interdisciplinary Grant-Funded Research as a Training Tool. Symposium presented at the 120th annual meeting of the American Psychological Association, Orlando, FL.

Bell, D., Christoff, K., Hansen, D., Heimberg, R., Larkin, K., Luebbe, A., & **Flegle, L.** (2009, November). *Getting in and succeeding in graduate school in clinical psychology.* Panel discussion at the annual meeting of the Association for Behavioral and Cognitive Therapies, New York, NY.

POSTERS

Flegle, L., Walters, A. B., & Schulenberg, S. (2012, November). *Treatment as usual in the wake of the Gulf Oil Spill.* Poster presented at the annual meeting of the Association for Behavioral and Cognitive Therapies, National Harbor, MD.

Flegle, L., Cox, L., Karl, K., & Christoff, K. (2011, February). *Social relationships of children with disabilities in inclusive classrooms: Comparisons to their typical peers.* Poster presented at the annual meeting of the Mississippi Academy of Sciences, Hattiesburg, MS.

Karl, K., **Flegle, L.,** Cox. L., & Christoff, K. (2011, February). *Friendship presence on the playground and its association to physical activity level: A preschool sample.* Poster presented at the annual meeting of the Mississippi Academy of Sciences, Hattiesburg, MS

Cox, L., **Flegle, L.,** & Christoff, K. (2010, February). *The effects of ethnicity on perception of body weight.* Poster presented at the annual meeting of the Mississippi Academy of Sciences, Hattiesburg, MS

Karl., K., **Flegle, L.,** Cox., L., & Christoff, K. (2010, November). *Social interaction to promote physical activity in preschool children: Can working with more active peers help?* Poster presented at the annual meeting of the Association for Behavioral and Cognitive Therapies, San Francisco, CA.

Flegle, L., Karl, K., & Christoff, K. (2009, November). *Understanding what young children view as different and troublesome among their peers: Implications for peer acceptance of children with disabilities.* Poster presented at the annual meeting of the Association for Behavioral and Cognitive Therapies, New York, NY.

Flegle, L., Trent, L., Ambrose, C., Latzman, R.L., & Young, J. (2009, November). *Predictors of clinical elevations from a school-based mental health screening.* Poster presented at the annual meeting of the Association for Behavioral and Cognitive Therapies, New York, NY.

Flegle, L., Banahan, A., & Gadd, W. (2009, February). *Exploring the relationships among BMI, EAT-26 scores, and the amounts of current and desired exercise.* Poster presented at the annual meeting of the Mississippi Academy of Sciences, Olive Branch, MS.

Flegle, L. (2007, November). *The relationship of gender, aggression, and ascription of responsibility to parent and peer attachment amongst adolescents.* Poster presented at the Nebraska Psychological Symposium, Crete, NE.

PROFESSIONAL ACTIVITIES

Guest Reviewer, *Psychological Trauma: Theory, Research, and Practice*
Guest Reviewer, *Foundations of Behavioral, Social, and Clinical Assessment of Children, Sixth Edition*
Guest Reviewer, *Behavior Therapy*
Co-chairperson, American Foundation for Suicide Prevention Out of the Darkness Walk (2011)
Graduate Student Senate (2012-2013)

HONORS & AWARDS

Recipient, Outstanding Graduate Poster, Mississippi Academy of Sciences (2009)
Recipient, Regents Tuition Scholarship, University of Nebraska- Lincoln (2004 – 2008)
Recipient, Honors Textbook Scholarship, University of Nebraska- Lincoln (2004 – 2008)

PROFESSIONAL REFERENCES

Mariella M. Self, Ph.D.	mmself@texaschildrens.org Texas Children's Hospital 6701 Fannin Street, CC 1740.00 Houston, TX 77030 832-822-3750
Danita Czyzewski, Ph.D.	danitac@bcm.edu Texas Children's Hospital 6701 Fannin Street, CC 1740.00 Houston, TX 77030 832-822-3750
John Young, Ph.D.	jnyoung1@olemiss.edu University of Mississippi 309 Peabody Hall University, MS 38677 662-915-1775
Scott Gustafson, Ph.D.	sagustaf@olemiss.edu University of Mississippi G382 Kinard Hall University, MS 38677 662-915-5272