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Describing Psychotherapy:
Utilizing Regulatory Focus Theory to Influence
Help-Seeking Attitudes and Behavior

by

Jake Park

A thesis

submitted in partial fulfillment

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To the Graduate Faculty:

The members of the committee appointed to examine the thesis of Jake Park find it satisfactory and recommend that it be accepted.

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Thesis Abstract – Idaho State University (2018)

While evidence-based treatments for a variety of mental illnesses have become increasingly available to the general public, a majority of those afflicted by mental illness do not seek psychotherapy. The purpose of this study was to examine whether psychotherapy advertisements that are tailored to an individual's regulatory focus (Higgins, 1997) can be effective in improving participants' attitudes toward psychotherapy, perceptions of credibility and effectiveness, and intentions to seek treatment if needed. A nation-wide sample of adult participants recruited through MTurk were randomized to read one of four description of psychotherapy. In the control condition, basic information about what happens in psychotherapy was provided. In the promotion-focused condition, additional information about states that can be obtained through psychotherapy (i.e., improved self-esteem, greater peace and happiness, stronger relationships, more positive outlook on life) was provided. In the prevention-focused condition, the additional information that was provided discussed states that can be avoided or decreased through psychotherapy (i.e., low self-worth, distress, sadness, relationship conflicts, pessimism). The final condition included both promotion-focused and prevention-focused information. Results did not support the hypotheses posed, but limitations to the present study are discussed and exploratory analyses provided. Applications for encouraging treatment seeking in future studies are also discussed.

Key Words: psychotherapy, advertisements, regulatory focus theory, promotion, prevention, attitudes

Introduction

Prevalence of Mental Health Problems and Psychotherapy Use

Mental health disorders are considered one of the leading causes of sub-standard health and disability worldwide (World Health Organization [WHO], 2001). According to the National Institute of Mental Health (NIMH, 2016), over 450 million people are affected by mental illness globally. In the United States specifically, approximately 43.6 million individuals are estimated to experience a diagnosable mental disorder in a given year, and 9.8 million adults suffer from what is considered a serious mental illness (NIMH, 2016). Although the wide-spread presence of mental health problems has significant economic consequences (the global costs were determined to be roughly $2.5 trillion in 2010 and are projected to be $6 trillion by 2030 [Bloom et al., 2011]), one of the most devastating effects associated with mental illness is suicide. It is reported that each year over 44,000 people die by suicide in the United States (Center for Disease Control [CDC], 2015), and over 800,000 people globally die each year due to suicide (WHO, 2016).

Although mental health disorders currently are a significant problem in the United States and worldwide, several effective treatments for individuals who suffer from psychological disorders do exist. Specifically, over a century of research has come to establish psychotherapy as an effective treatment for those who experience mental health problems (American Psychological Association [APA], 2013; Lambert, 2013; Wampold & Imel, 2015). In fact, psychotherapy has been shown to be more effective in treating mental illnesses than are many "evidence-based" medical practices in treating their respective targets (e.g., influenza vaccine, cataract surgery, beta-blockers in cardiology; Wampold, 2007). Psychotherapy has been shown to be as or more effective than medication for most psychiatric disorders (Greenberg, 2016;

Huhn et al., 2014) and more effective than other treatment options, such as self-help and peer support groups (Lambert, 2013). Further, the effects of psychotherapy have been demonstrated across disorders, client types, and settings (Bohart & Wade, 2013).

Unfortunately, many people who experience mental health problems do not seek out professional psychological help. In one study, over 46,000 individual survey submissions by United States households were collected to determine how often those that screen positive for depressive symptomatology seek treatment, as well as in what ways treatment was sought (Olfson, Blanco, & Marcus, 2016). Roughly 8.4% of respondents (adults) screened positive for depression, but only 28.7% of those individuals had actually received treatment for their depression. Interestingly, of those adults that had received treatment, only 29.9% screened positive for a mental health disorder. In reviewing the data collected from the 2015 National Survey on Drug Use and Mental Health, Bose and colleagues (2016) found that of the 43.4 million adults suffering from any form of mental illness in the United States, more than half had not received mental health services in the past year. In another study, Olfson and Marcus (2010) examined survey data to identify trends in outpatient psychotherapy. Using data collected from the Medical Expenditure Panel Surveys in both 1998 (N = 22,953) and 2007 (N = 29,370), they found that the rate of psychotherapy usage remained relatively stable at just over 3%. In contrast, among those seeking any form of mental health treatment, the use of psychotropic medication as the sole method of intervention increased from 44.1% to 57.4%, indicating people are becoming increasingly more likely to use medication in lieu of psychotherapeutic interventions.

Attitudes and Stigma toward Seeking Psychotherapy

A large body of research has been conducted examining reasons why many individuals who experience mental health problems do not seek out psychotherapy. Although several demographic (e.g., ethnicity/race, gender, socio-economic status) and psychological variables (e.g., awareness, gender-role conflict, perceived availability, psychological mindedness) have been found to predict treatment seeking (Addis & Mahalik, 2003; Courtenay, 2000; Galdas, Cheater, & Marshall, 2005; Grant et al., 2012; Gonzalez et al., 2011; Husaini, Moore, & Cain, 1994; Leaf et al., 1987; Neighbors & Howard, 1987; Pescosolido, Wright, Alegría, & Vera, 1998; Self, Oates, Pinnock-Hamilton, & Leach, 2005), some research indicates that attitudes held toward psychotherapy and the associated stigma with seeking treatment likely play the largest role in explaining help-seeking behaviors (Outram, Murphy, & Cockburn, 2004). Attitudes toward psychotherapy are defined as the opinions and beliefs one holds regarding the utility and overall acceptability of a given form of treatment (Vogel, Wade, & Hackler, 2007). The extant literature has documented a strong relationship between attitudes toward help-seeking and the use of psychotherapy – this relationship is consistent across all ages, genders, race/ethnicities, nationalities, and mental health diagnoses (Ang, Lim, Tan, & Yau, 2004; Morgan, Ness, & Robinson, 2003; Vogel & Wester, 2003). For example, decreased intentions to seek mental health treatment, as well as a decreased likelihood of seeking or using psychotherapeutic services, has been linked with negative attitudes toward psychotherapy (Bonabi et al., 2016; Cooper, Corrigan, & Watson, 2003; Jimenez, Bartels, Cardenas, & Alegria, 2013; Kim, Britt, Klocko, Riviere, & Adler, 2011). Beyond that of simply seeking treatment, negative attitudes have also been found to have a relationship with both treatment adherence and premature termination (Sirey, Bruce, Alexopoulos, Perlick, Friedman, & Myers, 2001).

While several studies have sought to identify the variables that predict professional psychological help-seeking, other studies have tested strategies for improving attitudes as a method to help more individuals get the mental health help that they need. For example, Brecht and Swift (2016) recently tested whether the American Psychological Association's Psychotherapy Works videos (http://www.apa.org/helpcenter/psychotherapy-works.aspx) are effective in reducing stigma and improving attitudes toward psychotherapy in a nationwide sample of adults. They found that the short videos were effective in decreasing perceptions of public stigma, but they did not have an impact on self-stigma or overall attitudes. In another similar study, Gallo, Comer, Barlow, Clarke, and Antony (2015) tested whether a different set of short commercials for psychotherapy could change attitudes and intentions to seek treatment if needed. In contrast to Brecht and Swift, Gallo and colleagues found their commercials to be effective in changing both attitudes and intentions. In a similar vein, Buckley and Malouff (2005) examined the effects of a video containing several positive first-person accounts of psychotherapy. The video, which was constructed based on the principles of cognitive learning theory, was shown to significantly increase positive attitudes toward treatment-seeking. Other studies have also found that providing clients with simple educational materials can also have a positive impact on attitudes toward psychotherapy (Gonzalez, Tinsley, & Kreuder, 2002; Guajardo & Anderson, 2007).

In summary, the existing research indicates that a large percentage of individuals who experience mental health problems fail to seek psychotherapy (Olfson & Marcus, 2010). Studies have also found that attitudes and stigma play a significant role in predicting psychotherapy treatment-seeking behaviors (Outram, Murphy, & Cockburn, 2004; Bathje & Pryor, 2011; Corrigan, Druss, & Perlick, 2014). A smaller, but growing body of research suggests that brief

advertisement and educational materials about psychotherapy can improve attitudes and reduce stigma (Brecht & Swift, 2016; Gallo, Comer, Barlow, Clarke, & Antony, 2015; Buckley & Malouff, 2005). However, this growing body of literature has produced some mixed results. Additionally, the materials that have been tested have been universally applied across client types. It is possible that individuals might respond differently to different types of materials and messages about psychotherapy depending on their unique characteristics. Further research is needed to test whether psychotherapy advertisement materials can be more effective when tailored to an individual's personal characteristics.

Regulatory Focus Theory

An individual's regulatory focus may be one variable that explains motivation to seek treatment, and thus tailoring psychotherapy advertisement materials according to Regulatory Focus Theory (RFT; Higgins, 1997) may be beneficial in improving attitudes toward psychotherapy and encouraging help-seeking when there is a need. In initially putting forth the ideas of regulatory focus theory, Higgins (1997) proposed that the literature, and psychologists more generally, too heavily rely on the idea of the hedonic principle of motivation. He believed that the idea that people simply seek pleasure and avoid pain neglects to tell the whole story. His argument states that while these might be accurate observations of behavior, they fail to describe the mechanisms of these motivated behaviors. Specifically, he believed that the typical model of hedonic motivation fails to articulate differences among people in how they approach a state of pleasure and avoid the experience of pain. Higgins (1997) suggested that there may be differences in individuals' regulatory focus; that is, while some individuals are more oriented toward seeking benefits or gains (promotion) when working toward their goals or planned behavior, others are more oriented toward avoiding negative outcomes (prevention). The specific

mode of focus, promotion or prevention, is rooted in an individual's desired end-state. Promotion focused end-states may represent an individual's own, or perhaps a significant other's, hopes, wishes, or aspirations – end-states described as strong 'ideals.' Prevention focused end-states may represent either their own or a significant others' duties, obligations, or responsibilities – end-states described as strong 'oughts.' For example, while two individuals may have the same goal of acquiring a degree from a University, they could differ in their mode of regulatory focus. One of them could view the attainment of a degree as fulfilling the aspiration of becoming the first engineer in the family (i.e., a promotion focus), while the other individual might view acquiring an engineering degree as fulfilling a responsibility to continue a family business or tradition (i.e., a prevention focus).

The key difference in mindset between those with an activated promotion system versus an activated prevention system is how they operationalize their status quo, or "zero-point," relative to the present goal (Zou et al., 2014). In those with an activated promotion system, the idea is to *advance* (approach) from the current status quo of "0" to a preferred "+1" state. Thus, a failure of the promotion system is represented by the maintenance of the status quo, and a success with the attainment of the "+1" state. In those with an activated prevention system, the idea is to *maintain* the safe status quo of "0" while preventing the fall to a worse "-1" state (avoidance). Thus, a failure in the prevention system is represented by the presence of the worse "-1" state, while a success is represented by the maintenance of the status quo.

Higgins (1987) further illustrates that different situations may impact which type of self-guide (i.e., ideal/promotion vs. ought/prevention) is accessible. It is posited that socialization effects dictate how we approach pleasure and avoid pain, and this begins in childhood when children learn to approach positive outcomes and avoid negative outcomes. This learning then

facilitates how an individual may approach a given situation, and it follows that either the promotion or prevention system could be activated situationally and temporarily. For example, any feedback we may acquire, be it from a professor or some other form of superior, may communicate gain vs. non-gain information (promotion focus) or non-loss vs. loss information (prevention focus). In communicating a given task to students, a professor may say, "Should you acquire an 'A' on this assignment, you will be rewarded with extra points on your next exam." In this instance, the professor is relaying gain vs. non-gain information (i.e., inducing promotion system engagement). On the other hand, the professor could communicate the same exact information while engaging the students' prevention system by saying, "If you do not acquire an 'A' on this assignment, no extra points will be given on your next exam (i.e., non-loss vs. loss information)." Presenting instructions related to a specific task, or being given "if-then" rules pertaining to what actions produce certain consequences, can communicate this gain vs. non-gain or non-loss vs. loss information (Higgins, 1997).

The opposing inclinations for either approach or avoidance strategies in relation to either promotion or prevention focus is supported by a study completed by Higgins et al. (1994) in which participants were better able to recall stories of students that matched their own, primed, regulatory focus. In this study, undergraduate participants were recruited and, at the beginning of the study, were primed to be either promotion- or prevention-focused for the experimental manipulation. To do this, the participants were asked to report how their hopes and goals had changed over time (promotion-focus priming) or how their sense of duty and obligation had changed over time (prevention-focus priming). Immediately following, they were prompted to read about the experiences of another undergraduate student that had taken place over the course of several days. In the documented experiences, the fictionalized student utilized opposing

strategies to approach a desired end-state: by attempting to approach a match to his desired end-state, or by avoiding a mismatch to his desired end-state (operationalized as a promotion-focused or prevention-focused mode of self-regulation, respectively). It was hypothesized that the participants would be more inclined to remember the regulatory focus strategies that corresponded with their primed mode of focus, as indicated by their ability to recall those instances in which the fictionalized student utilized the strategies that matched their condition. These predictions were supported in that those primed with a promotion-focus were better able to recall the experiences of the student in which the student was approaching a match to a desired end-state, while those with a primed prevention-focus better recalled those instances in which the student avoided a mismatch to a desired end-state.

One's primed mode of regulatory focus, however, may be separate from what is their chronic focus, or the self-regulatory system that is "strongest" within an individual at any given moment. As such, it would follow that performance on a goal or task primed with a focus that is consistent with one's chronic focus would be superior compared to those presented with a task primed inconsistently with their chronic focus. To test this hypothesis, Shah, Higgins, and Friedman (1998) provided undergraduate participants with an anagram task priming either their promotion or prevention system following previous measurement of their chronic regulatory focus. Participants were tasked with finding as many words within the anagram as they could find, but the task was framed as either finding 90% or more of the words and earning an extra dollar (from $4 to $5) for participating (promotion-focus) or as needing to miss less than 10% of the words to avoid losing a dollar (from $5 to $4; prevention focus). It was discovered that chronic regulatory focus moderated the effects of regulatory focus task framing – ideal strength

was more positively associated with performance in the promotion-framing condition, and ought strength with performance in the prevention-framing condition.

Regulatory Focus, Affect, and their Effects on Behavior

Higgins (1997) suggested that depending on the type of goal that is accessible, be it ideal or ought, the success or failure of those goals may have a differential effect on the individual's affect. That is, when events are linked to the achievement of hopes and aspirations (promotion focus), success is experienced as a gain, and feelings of happiness or joy often follow. On the other hand, a promotion focus failure is experienced as a non-gain, which often triggers feelings of sadness, frustration, or disappointment. In contrast, when events are linked to the achievement of self-construed duties and obligations (prevention focus), success is experienced as a non-loss, and failure as a loss. Success associated with prevention focus is suggested to result in feelings of quiescence, and failure with feelings of agitation and anxiety. For example, Strauman and Higgins (1988) found that a larger magnitude of actual-ideal self-discrepancies was predictive of depressive symptoms. Further, larger actual-ought self-discrepancies were predictive of symptoms related to social anxiety. It has also been found that when self-discrepancies are present, individuals experience an increase in dejection-related emotions when their ideal selves are primed, and agitation-related emotions when their ought selves are primed (Higgins, Bond, Klein, & Strauman, 1986). These effects on emotion have also been observed when those with a significant self-discrepancy experience experimentally-induced salience of a single, discrepant, self-described trait from their actual self (Strauman & Higgins, 1987).

With the ability to experience both pleasure and pain with the success and failure of either the promotion or prevention self-regulatory system, it is critical to note the differential impact of both success and failure of each system on subsequent motivation. The theory of

regulatory fit (Higgins, 2000) postulates that when people utilize goal pursuit means that are consistent with their chronic regulatory focus, motivation is enhanced, goal pursuit is more enjoyable, and the subjective value of what they are doing/pursuing is greater compared to those that do not experience this regulatory fit. Specifically, to experience regulatory fit with a promotion-focused goal would necessitate eagerness (approach) means to attain the desired end-state, and the use of vigilance (avoidance) means would be necessary to experience regulatory fit with a prevention-focused goal. Over time, however, the prolonged experience of success and/or failure with either of the self-regulatory foci can influence one's regulatory fit and, in turn, one's affective experiences. *Regulatory fit* suggests that success with a promotion focus maintains, and even promotes, the use of eagerness-means in goal pursuit. Failure with a promotion-focus, on the other hand, decreases the eagerness, thus decreasing the level of regulatory fit and likelihood of future success and pursuit of promotion-related goals. Conversely, success with a prevention focus decreases vigilance means in goal pursuit, and failure with a prevention focus increases vigilance so as to successfully and more frequently facilitate pursuit of future prevention goals.

Higgins (2001) suggested that providing a strategy that involves "opposing an interfering force" would help to re-engage the promotion system, and that utilizing a strategy that framed dealing with a problem as "coping with a nuisance" would reduce prevention system engagement. This idea has since been supported (Higgins, Marguc, & Scholer, 2012). By utilizing these strategies to reduce prevention and increase promotion system engagement, Strauman et al. (2015) created a series of micro-interventions to target the systems of engagement in those with varying levels of dysphoric and/or anxious symptoms. In their study, participants were given a prompt to write about a struggle that they had experienced, and to write about coping with the struggle using one of the strategies, both, or neither. The researchers were

successful in increasing positive affect in those with depression, and decreasing negative affect in those with anxiety. Further addressing the issue of *regulatory non-fit* and its associated potential for decreased task engagement, it has been observed that this *non-fit* reduces one's confidence in evaluations of actions in respect to goal pursuit (Cesario, Grant, & Higgins, 2004).

Applications of Regulatory Focus Theory to Psychotherapy

To date, relatively little research has been conducted examining regulatory focus in the context of psychotherapy. In one study, Wollburg and Braukhaus (2010) observed the differential effects of approach and avoidance goal-setting on treatment outcome. In that study, participants consisted of 657 psychiatric inpatients with a primary diagnosis of depression. These participants were asked to identify three psychotherapy goals before engaging in a "multimodal cognitive-behavioral therapy program." Following goal formulation, participants were divided into either an approach (APP) or avoidance (AVOID) group. The authors operationalized approach as "trying to move forward or maintain a positively evaluated end-state," and avoidance as "trying to escape or stay away from a negatively evaluated end-state." The APP group consisted of those that only identified approach goals, and the AVOID group included those that identified one or more avoidance goals. At posttreatment, participants were asked to rate the achievement of each of their identified goals on a scale from 0 to 10. The authors operationally defined treatment outcome in terms of their scores on the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) at posttreatment compared to pretreatment. Inconsistent with their prediction, the two groups did not differ in rate of goal achievement. They did, however, find a marginal difference between groups in treatment outcome (superior outcomes for approach; $d = 0.18$), which was consistent with their original predictions.

While Wollburg and Braukhaus (2010) discovered marginal differences in outcome dependent on whether or not the participants identified an avoidance goal in therapy, a number of limitations with this study are present. First, although the researchers cited support for the idea that psychiatric patients tend to pursue more avoidance-related goals than approach-related goals compared to healthy controls (Berking et al., 2003), the participants in their study identified a total of 1,493 approach goals compared to only 671 avoidance goals. It seems highly likely that this discrepancy is due in part to the authors' proposed operational definition of approach- and avoidance-type goals. Specifically, though regulatory focus is more concerned with the concept of self-regulation as opposed to the goals themselves, it is noted that any attempt to match a desired end-state is marked by approach motivation, regardless of whether approach or avoidance strategies are utilized in the process (Higgins, 1997). Wollburg and Braukhaus appropriately distinguished approach goals as moving toward a desired outcome and avoidance goals as moving away from negative, undesired end-states; however, in their classification of participants' goals, this definition was not properly employed – approaching reward and approaching a lack of punishment are both considered to be approaching a desired end-state and are to be classified as approach motivation, regardless of the strategies utilized to attain the end-state. For example, the phrase, "I want to reduce my depression" was provided in the article as an example of "trying to escape or stay away from a negatively evaluated end-state," when this should rather be categorized as *approaching the desired end-state* of reduced depressive symptoms framed as avoiding mismatches to that which is *desired* (i.e., if the end-state described is desired, it is by default defined as approach motivation).

The more nuanced concept of regulatory focus is, again, focused solely on approach motivation, but proposes there are different methods by which to approach desired end-states

(i.e., approach and avoidance strategies). That is, either a promotion focus or a prevention focus can be present in the motivation to *approach* desired end-states – regulatory focus is not concerned with avoidance of undesired end-states (Higgins, 1997). The use of regulatory focus as a foundation for understanding approach and avoidance is not only more consistent with the typical motivations of those seeking psychotherapy, but also provides the means by which to observe the differential framing of goals, the strategies utilized to attain those goals, and how they interact to influence performance, affect, future motivational inclinations, and inform interventions to correct disordered self-regulation.

In another study, Katz, Catane, and Yovel (2015) utilized regulatory focus theory to examine the differences in how the aims of psychotherapy have traditionally been framed (e.g., "reducing the harm of symptoms") compared to a values-based framing of psychotherapy and their differential effects on motivation in therapeutic tasks. The desired end-states of a reduction of symptoms and the pursuit of one's chosen values are considered to involve a prevention-focus and a promotion-focus, respectively. In the study, the 123 undergraduate participants were first prompted to elicit and ruminate upon an unpleasant event and an associated negative thought related to that event. Immediately following the elicitation of the "hot" cognition, participants were asked to select either a relevant valued behavior or a negative symptom, and were then told that the mitigation of the effects of this "hot" cognition would either promote the chosen valued behavior, or prevent the selected negative symptom. Two control conditions, a distraction control (participants identified preferred colors as opposed to a value or negative symptom) and a "no intervention" control, were also included. All participants were then asked to engage in an imagination-based therapeutic task for an unspecified amount of time, and the recorded time spent on the task was the primary dependent variable in the study. Negative affect was also

measured at three separate times throughout the study. The results indicated that while there were no significant differences in the reduction of negative affect between the promotion- and prevention-focused conditions (i.e., values-based and symptom reduction interventions, respectively), time spent on the therapeutic task was significantly greater in the promotion-focused condition. The findings suggest that while the experience of and motivation to reduce negative emotional symptoms may often be the initial motivator in seeking treatment, clients may be more motivated by their self-selected values to engage and remain in treatment.

A more applied usage of regulatory focus theory is the development of Self-System Therapy (SST; Vieth et al., 2006), a treatment created for depressed individuals with dysregulated promotion goal pursuit. SST is based on the ideas of regulatory focus theory that states those with a socialization history lacking in promotion focus are likely to have greater difficulty in pursuing and attaining promotion goals (Higgins, 1997). This lack of promotion goal attainment is further theorized to increase susceptibility to depression, and SST was designed to modify a client's goals and corresponding strategies to attain them, with the aim of decreasing depressive symptoms. With the general emphasis on self-regulation, the incorporation of related interventions from other therapies (e.g., behavioral activation) is made easy for both client and clinician. Strauman et al. (2006) demonstrated similar efficacy in treating clients with depression with either SST or cognitive therapy; however, in those clients with a self-reported lack of promotion focus in their socialization history, SST was reported to have significantly greater therapeutic outcomes compared to those treated with cognitive therapy.

It is possible that the ideas from Regulatory Focus Theory also have application for encouraging treatment seeking behavior. Specifically, it is possible that efforts to encourage treatment seeking behavior would be most successful if they are tailored to the preferred

regulatory system (promotion or prevention) of the individual. In individuals with a chronic promotion focus, research suggests that the experimental engagement of the promotion system is likely to increase positive affect. Thus, for these individuals, engagement of the promotion system relative to the goal "I want to experience more happiness" may positively influence attitudes and intentions toward treatment-seeking behavior. For example, framing treatment in such a way that describes treatment as helping in overcoming one's problems that are preventing them from living their "ideal" life, and emphasizing the potential for improved quality of life, would likely facilitate promotion engagement (Higgins, 2001). While such a description would likely induce positive attitudes and intentions in an individual who has a tendency for use of promotion-based strategies, this description would likely have a lesser effect on individuals who have a tendency for prevention focused strategies due to lack of regulatory fit. In individuals with a socialization history of prevention focus, priming of the prevention system is likely to result in increased motivation and task engagement. For these individuals, priming of the prevention system relative to the goal "I want to decrease the symptoms I'm experiencing" may positively influence attitudes and likelihood to seek treatment. For example, treatment framed as having the goal of decreasing symptoms and viewing the associated distress as a nuisance that can be coped with by attending to it, would likely facilitate regulatory fit in those that typically employ prevention-focused strategies for goal attainment (Higgins, 2001). Those individuals equally high in promotion and prevention focus would likely benefit most from a condition incorporating both an emphasis on facilitation of living their "ideal" life as well as on the reduction of symptoms and their corresponding distress. While they would likely benefit from the priming of either mode of focus without the other, engagement of both the promotion and

prevention systems would logically result in the highest level of regulatory fit and, in turn, greater likelihood of and success in goal pursuit.

Aims of the Current Study

The aim of the present study was to examine whether psychological help-seeking attitudes and intentions could be differentially manipulated based on advertisements that were either promotion- or prevention-focused. While there exists a growing body of research indicating that brief psychotherapy advertisement and educational materials can improve attitudes and intention to seek psychotherapy when broadly applied, it is possible that tailoring advertisements to an individual's regulatory focus could have a more positive impact on treatment seeking attitudes and behaviors. Specifically, in the present study all participants were provided a general description of psychotherapy, including details about what to expect during treatment and how long psychotherapy typically takes to produce lasting changes. Then, depending on the condition, participants either (1) received no additional information, (2) received promotion-focused statements about the potential benefits of psychotherapy, (3) received prevention-focused statements about the potential benefits of psychotherapy, or (4) received both promotion-focused and prevention-focused statements about psychotherapy. It was hypothesized that the psychotherapy advertisements would have the most positive effect when the information presented in the particular condition matched the individual participant's regulatory focus.

Hypotheses

Hypothesis 1. We expected that overall, participants randomly assigned to the promotion-focused, prevention-focused, or combined treatment description conditions, would respond more favorably (increased help-seeking intentions, attitudes, and expectations) to the

possibility of seeking professional psychological help, compared to participants assigned to the control condition.

Hypothesis 2. We expected that the effectiveness of the conditions (promotion-focused, prevention-focused, and combined) on attitudes and intentions toward seeking psychotherapy (help-seeking intentions, attitudes, and expectations) would depend on the individual participant's promotion and prevention socialization histories.

Hypothesis 2a. We expected that participants with promotion-focused socialization histories would respond more positively to the promotion-engagement and combination conditions, compared to the prevention-focused and control conditions.

Hypothesis 2b. We expected that participants with prevention-focused socialization histories would respond more positively to the prevention focused and combination conditions, compared to the promotion-focused and control conditions.

Hypothesis 2c. We expected that participants with socialization histories that are high in both promotion and prevention foci would respond more positively to the combination condition, compared to the control and other experimental conditions.

Methods

Participant recruitment

Participants in the study (18-years-old and older, residing in the United States), were recruited utilizing Amazon's Mechanical Turk (MTurk) crowdsourcing Internet Marketplace. Given that many individuals from the general population who need psychological treatment do not seek psychological help, we were interested in testing the treatment descriptions (based on Regulatory Focus Theory) in a general population, rather than an exclusively treatment seeking sample. Thus, MTurk represented an ideal method of recruitment. Though MTurk is a relatively

novel way to recruit participants for psychological research, hundreds of studies utilizing the service have been published in numerous well-respected, top-ranked journals (Chandler & Shapiro, 2016). With more than 500,000 registered users (Stewart et al., 2015), the advantages to using MTurk for research recruitment are numerous. While MTurk may have drawbacks, such as the overrepresentation of European- and Asian-Americans and an underrepresentation of Hispanics and African Americans (Paolacci & Chandler, 2014), direct comparison studies have revealed MTurk samples are often better representative of the population than samples collected from college students, community samples in college towns (Berinsky et al., 2012), and even other online sources (Casler et al., 2013). The validity of the data collected through MTurk has been shown to be adequate for research purposes – for example, scale reliability (Behrend et al., 2011; Buhrmester et al., 2011; Jahnke et al., 2015), concurrent and convergent validity (Shapiro et al., 2013; Wymbs & Dawson, 2015), effect sizes (Berinsky et al., 2012; Horton et al., 2011; Paolacci et al., 2010), and test-retest reliability (Chandler & Shapiro, 2016), have all been shown to be consistent with or superior to results gathered from other, more traditionally used, samples. Germane to the present study, MTurk has become increasingly prevalent in research related to clinical questions, including studies on common factors (e.g., Corrigan et al., 2015; Arch et al., 2015; Liebowitz et al., 2015) as well as in investigations on a variety of psychopathological symptoms in the general population, ranging from compulsive buying to hypomania (Rose & Segrist, 2012; Raines et al., 2015; Fergus & Bardeen, 2014; Lebowitz et al., 2014; Winer et al., 2014; Yang et al., 2014; Devlin et al., 2015). To further ensure the quality of the data that we obtain, only MTurk workers who had completed at least 100 Human Intelligence Tasks (HITs) with a 95% acceptance rate were allowed to participate.

Procedures

Eligible and interested MTurk workers were directed to the online study, which was administered through Qualtrics. The study began with an informed consent page. After providing informed consent, participants were prompted to provide various demographic information including age, ethnicity, gender, income, and employment status, as well as information regarding their past experiences with mental health services. They were then asked to complete the Regulatory Focus Questionnaire (RFQ; Higgins et al., 2001) and the General Regulatory Focus Measure (GRFM; Lockwood et al., 2002). Participants were then randomly assigned (utilizing the block-randomization feature in Qualtrics) to one of four conditions: promotion-focused psychotherapy framing, prevention-focused psychotherapy framing, combined promotion and prevention-focused psychotherapy framing, and a control psychotherapy description condition. Following the experimental manipulation, participants were asked to complete questions regarding treatment seeking intentions, the Credibility/Expectancy Questionnaire (CEQ; Devilly & Borkovec, 2000), and the Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS; Mackenzie et al., 2004). Attention check questions (e.g., “Please select response number 3”) were distributed throughout the survey to assess for cognizant responding. Participants’ level of global distress was also measured as a potential covariate utilizing the Outcome Questionnaire (OQ-45.2; Lambert et al., 1996). To rule out any potential order effects, all questionnaires following the primary dependent measure were administered randomly. At the end of the study, subjects were prompted to answer questions related to how honestly they responded to the questions in the study, as well as to how seriously the took the study. Each participant was then provided with debriefing information about the purposes and goals of the study, as well as information on how to find a psychologist if they felt

like they had a mental health issue that they would like to talk to someone about. Participants were paid $0.50 for their participation.

Conditions

In all four conditions, participants were first presented with a general description of psychotherapy. This general, neutral-language description included information about the empirical support for the use of psychotherapy, what psychotherapy typically involves, and how long it often takes before changes are observed. The general description is all that was included in the control condition. The three experimental conditions included an additional two to three sentences with language pertinent to promotion-focused strategies, prevention-focused strategies, or a combination of the two.

Consistent with the extant literature on priming one's regulatory focus toward the Promotion or Prevention system, the additional sentences provided in the experimental conditions framed psychotherapy either as focusing on increasing positive affect or decreasing negative affect; in the case of the combination condition, both were emphasized. Specifically, promotion-focused sentences emphasized overcoming barriers or problems that have gotten in the way of them living their 'ideal' life, which were followed by a description of the common experiences related to elevated positive affect once psychotherapy has concluded. Prevention-focused sentences emphasized one's problems as being in the way or as a nuisance that can be dealt with, followed by a description of the common experiences related to decreases in negative affect once psychotherapy has concluded. The final experimental condition employed the language utilized by both previous conditions, framing one's problems as a nuisance they have dealt with daily, but also as problems that now must be overcome to allow the individual to lead an "ideal" life. This was followed by a description of the common client experiences of increased

positive affect *and* decreased negative affect after therapy. See Appendix G for the wording of the conditions.

Measures

Regulatory Focus Questionnaire (RFQ, see Appendix B). The extant literature provides various ways in which one could measure "regulatory focus." Many of these measures aim to assess one's "chronic regulatory focus," or one's tendency to be more promotion- or prevention-oriented in aggregate. Three of these measures have been produced by Higgins, the original theorist behind RFT: the Regulatory Focus Questionnaire (RFQ; Higgins et al., 2001), the Selves Questionnaire (Higgins et al., 1986), and the Self-guide strength measure (also known as the Computerized Goal Assessment [CGA]; Shah, Higgins, and Friedman, 1998). Contrary to how their individual usage in the literature might imply, Higgins and colleagues did not create these measures to operationalize the same exact construct. Higgins et al. (1986) stated that the Selves Questionnaire was designed to target one's chronic goal *attainment* by assessing the discrepancies between their actual:ideal and actual:ought selves (Higgins, 2001). In contrast, the self-guide strength measure is described as measuring one's sensitivity to either a promotion or prevention focus, and is supported as moderating the relationship between one's chronic goal attainment (i.e., the Selves Questionnaire) and one's affective responses to a failed or successful pursuit of a goal (Higgins, 1998). The purpose of the RFQ is different in that it is concerned with one's subjective appraisal of his or her own histories of socialization and success in respect to promotion- or prevention-related strategies. In assessing these appraisals, one's tendency to utilize one strategy or another in approaching new task goals is the primary aim of the RFQ (Higgins et al., 2001).

The RFQ is an 11-item self-report questionnaire with two subscales, Promotion Pride and Prevention Pride, used to assess individual differences in their subjective histories of success in both promotion-related eagerness (Promotion Pride) and prevention-related vigilance (Prevention Pride). This measure includes six items for the Promotion Scale (maximum score = 30, minimum = 6) and five items for the Prevention Scale (maximum score = 25, minimum = 5), each item rated using a 5-point Likert-type scale ranging from "never or seldom" to "very often." To calculate each subscale score, all of the values corresponding to the item responses (i.e., 1-5) are recorded and added together, with some of the values being reversed depending on the wording of the question. All items included are in respect to one's subjective evaluation of their past, some pertaining to their parent's style of parenting or how successful they have been in respect to differential goal orientations. Higher scores in either Promotion or Prevention Pride have been shown to indicate strategic preferences in approaching provided new task goals, as well as the individual's appraisal of their own subjective history of success in using both self-regulatory systems of goal pursuit (Higgins et al., 2001).

The two scales have been shown to be independent from one another with little to no statistically significant correlation between them (Higgins et al., 2001). A factor analysis of the measure did reveal two factors with eigenvalues greater than 1, one subscale accounting for 29% of the variance in scores and the other accounting for 21% (Higgins et al., 2001). None of the items from either hypothesized subscale loaded on the other. Both subscales have an internal consistency (coefficient alpha) of .75 or higher, alongside a two-month test-retest reliability (Pearson correlation) of .79 or higher (Higgins et al., 2001). In investigating discriminant and convergent validity, Regulatory Focus Theory notes that both forms of pride are motives to succeed, and should each have independent relations to achievement motivation. Fitting with this

hypothesis, Harlow et al. (1997, unpublished manuscript) found that both RFQ Promotion and Prevention scores had significant, independent positive relations to the Personality Research Form (Jackson, 1974) Achievement scale. Higgins et al. (2001) also found no significant relations between scores on the RFQ and one's ideal or ought strength, as measured by the self-guide strength measure. They did, however, discover a relationship between RFQ scores and self-guide discrepancies. That is, higher RFQ Promotion scores (controlling for Prevention scores) had a significant negative correlation to ideal discrepancies (controlling for ought discrepancies; $r = -.29$, $p < .001$), and higher RFQ Prevention scores had a negative, but not significant, relationship to ought discrepancies (controlling for ideal discrepancies; $r = -.13$, $p = .08$). Given the RFQ is relevant to one's subjective history of success, it would follow that these constructs may relate negatively to one's failures to fulfill current concerns as defined by ideal and ought discrepancies. Higgins and colleagues (2001) also found significant predictive validity with the RFQ in predicting one's tendency to make an error dependent upon strategy (i.e., an error of commission or omission), number of means listed per goal identified, goal strategy with a new task, and frequency of eagerness- versus vigilance-related feelings during the past week. Haws and colleagues (2010) also note the predictive validity of the RFQ in respect to job preference, persuasive impact of advertisements, and how many options one may consider in approaching a novel situation.

General Regulatory Focus Questionnaire (GRFM; see Appendix C). The GRFM was created by Lockwood, Jordan, and Kunda (2002) as a measure designed to assess chronic promotion and prevention goals directly. The items created were informed by the theoretical constructs of RFT (Higgins, 1997). On this measure, respondents endorse items that are either related to promotion goals (e.g., "In general I am focused on achieving positive outcomes in my

life.") or prevention goals (e.g., "I frequently think about how I can prevent failures in my life."). Answers range in value from 1-9 for all 18 items, '1' indicating "Not at all true of me" and '9' indicating "Very true of me," with higher scores on either of the two proposed subscales, Promotion or Prevention, indicating a greater propensity to utilize, or greater salience of, the subscales respective self-regulatory strategies. Total scores for each subscale are calculated by either adding all scores together (none of the items are reverse-scored) or by averaging the scores of the individual subscales. In the original creation of the GRFM by Lockwood and colleagues (2002), the internal consistency of the two subscales were not reported. However, in a study comparing the many measures of regulatory focus, Haws and colleagues (2010) reported Cronbach's alpha levels of .85 for the promotion subscale and .77 for the prevention subscale. They further reported stability coefficients of .67 for the promotion subscale, and .75 for the prevention subscale. As part of their confirmatory factor analysis, Daws and colleagues (2010) reported a correlation of $r = .02$ between the two subscales. In the original GRFM as created by Lockwood and colleagues (2002), several of the items within the scale are academic in nature. For the purpose of the current study, these items were slightly tailored to fit the general population. See Appendix C for further details on which items were changed, and to see the original wording of the questionnaire as well as the wording that was used in this study.

Credibility/Expectancy Questionnaire (CEQ, see Appendix E). The CEQ was created by Devilly and Borkovec (2000) as a measure of clients' credibility beliefs and outcome expectations for psychological treatments. The first section of the questionnaire contains three credibility items (logicalness, success in reducing symptoms, and confidence in recommending the therapy to a friend) and one item related to expectancy. Answers range in value from 1-9 for the first three items, and for the fourth participants endorse a percentage (provided in increments

of 10) relating to how much improvement in functioning they think will occur as a result of the treatment. The second section contains two items, the first question with possible endorsements ranging from 1 (not at all) to 9 (very much) relating to how they feel the treatment will improve their functioning (credibility), and the second item employing the same percentage structure in the previous section relating to how they feel improvement in functioning will occur (expectancy). The first section is to be answered in terms of what the client *thinks* of the treatment, and the second section in terms of how the client *feels* about the treatment.

Devilly and Borkovec (2000) confirmed the proposed two-factor structure of the questionnaire with two factors having an eigenvalue greater than 1, the two factors accounting for 82.43% of the total variance. The scale has high internal consistency within each factor with a standardized alpha between .79 and .90 for the expectancy factor and a Cronbach's alpha between .81 and .86 for the credibility factor (Devilly & Borkovec, 2000). Across studies in the original paper, inter-item correlations for the expectancy factor ranged from .53 to .85, and between .62 and .78 for the credibility factor. Test-retest reliability was also found to be good after one week with a correlation of .82 for the expectancy factor and .75 for credibility.

For the purpose of the present study, the scoring of the CEQ is problematic. In the analyses presented in the previous paragraph, the researchers converted all of the scores into z-scores due to the two different scales used (i.e., a Likert-type scale and a scale utilizing percentages). Devilly and Borkovec (2000) suggest researchers explore alternative scaling methods, and for the current study the original 1-9 scale was converted to a 0-10 scale, and the percentages were converted to a similar scale (i.e., 0% = 0, 10% = 1, 20% =2, and so on). Responses from both were summed to acquire a total score, with higher scores indicating higher

credibility/expectancy beliefs. All individual items were also tailored to ensure they pertained directly to the psychotherapy being described to the participants.

Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS, see Appendix F). The IASMHS was created by Mackenzie and colleagues (2004) as a measure of general attitudes toward seeking professional psychological help. The IASMHS contains 24 items, each scored on a five-point rating scale ranging from 0 (disagree) to 4 (agree). With all negatively valenced questions being reverse-coded, scores range from 0 to 96, with higher scores indicating more positive attitudes toward seeking professional mental health services.

Based on a test of the psychometric properties by Mackenzie et al. (2004), the internal consistency for the full scale was measured utilizing Cronbach's alpha and had a value of .87. In determining predictive and concurrent validity, Mackenzie et al. correlated scores on the IASMHS with answers to either dichotomous or 7-point scale questions relating to past use of and intentions to use mental health services. Total scores on the IASMHS were positively correlated with both past use of professional help (r = .33) and intentions to use professional help (r = .38), and were negatively correlated with intentions to take care of problems by themselves (r = -.37), all within a community sample (all p-values < .01). In a replication sample, total scores were positively correlated with past use of professional help (r = .21), intentions to use professional help (r = .34), and intentions to talk to family/friends (r = .19), and were negatively correlated with intentions to take care of problems oneself (r = -.30) (all p-values <.01) (Mackenzie et al., 2004). In the third study discussed in the Mackenzie et al. article, test-retest reliability was examined (N = 23; 4 men and 19 women) over the course of three weeks. Correlations between the total IASMHS scores at the different time points were found to be significant (r = .85, p < .01).

Likelihood to Seek Treatment (see Appendix D). There exist several measures in the literature that have been utilized to measure one's help-seeking intentions; however, many of these measures are multi-factored questionnaires that would not adequately answer the question most germane to the present study: How might one's likelihood to seek treatment alter as a function of *how* psychotherapy is described? For example, while the Intentions to Seek Counseling Inventory (ISCI; Cash, Begley, McCown, & Weise, 1975) is widely used and well-validated, its use is limited to assessing one's hypothetical intentions to seek counseling relative to 14 separate psychologically distressing or impairing experiences. Similarly, the Willingness to Seek Help Questionnaire (WSHQ; Cohen, 1999) asks about one's intentions to seek help with respect to specific problem-types, while also containing language pertaining to the respondents' beliefs and attitudes regarding help-seeking more generally. The General Help-Seeking Questionnaire (GHSQ; Wilson, Deane, Ciarrochi, & Rickwood, 2005) is another widely accepted method by which to attain similar data, but is only used to measure one's intentions to seek help from non-professional, or informal, sources (e.g., family members, friends).

Due to the limitations of these existing measure of help-seeking intent, many researchers have employed the use of informal measures. Some studies have utilized simple, dichotomous items specifically related to the research question, asking about intent or willingness to seek treatment in specific contexts (e.g., Naginey & Swisher, 1990; Windle, Miller-Tutzauer, Barnes, & Welte, 1991). In order to assess participants' help-seeking intentions with greater specificity, other studies have used Likert scale items (e.g., Deane & Chamberlain, 1994; Deane, Skogstad, & Williams, 1999; Deane & Todd, 1996).

To assess the participants' likelihood to seek the treatment following the presentation of differential descriptions of psychotherapy, items utilized were based on items within the National

Comorbidity Survey Replication. These same items have also been employed in a study with the aim of improving help-seeking intentions (Gallo et al., 2015). Rather than using the dichotomous "yes/no" responses of the original questions, a 5-point Likert-type scale was utilized, with "1" indicating "very unlikely" and "5" indicating "very likely," to allow for more variability in responses. Three questions are included: *"How likely are you to seek psychotherapy or counseling from a mental health professional right now?", "How likely would you be in the future to seek psychotherapy or counseling from a mental health professional if you were experiencing a psychological problem?"* and *"How likely would you be in the future to refer a friend to seek psychotherapy or counseling from a mental health professional if they were experiencing a psychological problem?"* Scores from these three questions were combined to calculate a total intentions score, ranging from 3 to 15, with higher scores indicating stronger intentions.

Data Analysis

Hypothesis 1. First, we hypothesized that participants assigned to any of the experimental conditions (promotion-focused, prevention-focused, and combined psychotherapy descriptions) would show significantly more positive help-seeking intentions, attitudes, and expectations toward psychotherapy compared to participants assigned to the control condition. Four independent samples t-tests (one for each of the dependent variables) were conducted in order to compare scores on these measures from the control group to scores from the experimental conditions.

Hypothesis 2. Second, we hypothesized that participants' ratings (i.e., help-seeking intentions, attitudes, expectations) of the vignette conditions (i.e., control, promotion-focused, prevention-focused, and combined) would depend on the participants' Regulatory Pride. For

these analyses, Regulatory Pride was conceptualized in a categorical manner as Low Promotion/Low Prevention, High Promotion/Low Prevention, Low Promotion/High Prevention, and High Prevention/High Promotion. A median-split method was used for the Promotion and Prevention subscales of the GRFM in order to classify participants into these four groups. Use of the GRFM instead of the RFQ was determined after reviewing the psychometric properties of each measure with the current sample. After classification into GRFM groups, four 4x4 factorial ANOVAs (i.e., one for each dependent variable) were conducted to test the main and interaction effects of the four regulatory focus groups and the four psychotherapy description conditions on the dependent variables.

Significant interactions in the factorial ANOVAs were followed with post-hoc comparisons of the four vignette conditions within regulatory focus groups. For these post-hoc comparisons, four one-way ANOVAs (one for each dependent variable) were completed separately for each of the regulatory focus groups. Participants randomized to the condition that matched the regulatory focus group were expected to endorse the most positive attitudes toward the described treatments. After testing for an overall difference in the means, when significant differences were found, post-hoc comparisons of all groups were completed using Tukey's HSD.

Using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) we completed a power analysis for a proposed 4x4 Factorial ANOVA estimating a moderate effect size (f = .214) with a power of .80 and alpha level of .05. The estimated effect size was determined by referencing a study by Strauman et al. (2015) in which they tested RFT micro-interventions using similar analyses and measures. The article reported η^2 effect sizes ranging from .03 to .06. Utilizing an effect size conversion program in Microsoft Excel created by DeCoster (2012), the η^2 effect sizes were converted to f-values for use in G*Power, and the outputs were averaged resulting in an f-

value of .214. Using that value, the power analysis indicated that 423 participants would be required to detect statistical significance. Provided the likelihood of unusable or incomplete data (estimated at 25%), we desired to recruit 560 participants.

Results

Data Checking/Cleaning

Data preparation. Once all data were collected through MTurk, several data cleaning procedures were employed before the analyses were conducted. This included an analysis of reverse-coded items checking for inconsistent response patterns (i.e., all items from a participant having been minimally or maximally endorsed) and checking for total time spent on the study (i.e., taking less than five minutes to complete the entire study). Responses to CAPTCHA and instructional items were also assessed for cognizant responding. Any data completed by participants that "failed" these analyses were omitted from the subsequent data analyses. Data were also analyzed for random or nonrandom missingness. Outliers in the data (greater than 3.5 standard deviations from the mean) were replaced by the closest, non-outlier value. Once all data cleaning procedures had been completed, demographic information was compared between conditions and groups to determine any significant differences. When significant differences were found, the corresponding variables were included as covariates in the subsequent data analyses.

Outliers and incomplete/inaccurate data. A total of 753 participants began the study. First, the data from these 753 participants was checked for inconsistency in response patterns (i.e., scoring every item on a measure as the lowest or highest option even when reverse coded items existed). Data for five participants were eliminated for inconsistent response patterns. Total time spent on the survey was then checked to ensure an appropriate amount of time was spent

reading and responding to survey questions. We eliminated 70 participants due to having spent less than five minutes to complete the entire survey, or spent less than 30 seconds reading the description of psychotherapy (i.e., our only experimental manipulation). Two attention checks were also included in the survey that instructed participants to select a specific response (e.g., "Please select response number 3"), and data for three participants were eliminated for not responding to these items correctly. We also included items asking the participants if they had read the psychotherapy description in its entirety, and if they took the survey seriously and answered all of the questions honestly. Two participants' data were eliminated for answering these questions in the negative. Last, ten participants' data were removed for failing to complete any of the dependent variable measures. With the remaining 663 participants, missing data were identified for each scale/subscale and replaced with the mean of each individual participant's scores on the respective scale/subscale. Missing data were replaced using this method only if the participant had responded to at least 75% of the scale/subscale in question. In employing this process, individual item data were inserted for 26 participants on the GRFM and for 3 participants on the OQ. Subsequently, the remaining missing data were from only four participants that had appropriately responded to at least one DV measure, but had not responded at all to the other DV variable measures. We then defined outlier scores as those that were more than 3.5 SDs higher or lower than the mean for that measure. In using this definition, no outlier scores were identified for any of the measures.

Normal distribution checks. We then checked normality for the RFQ, the GRFM, and each of the DVs utilizing the Shapiro-Wilk test of normality. Scores on the Promotion subscale of the RFQ were non-normally distributed ($p < .05$), with skewness of -.30 ($SE = .10$) and kurtosis of .05 ($SE = .19$). Scores on the Prevention subscale of the RFQ were also non-normally

distributed ($p < .05$), with skewness of -.19 (*SE* = .10) and kurtosis of -.35 (*SE* = .19). Similarly, both the Promotion and Prevention subscales of the GRFM were non-normally distributed ($p < .05$). The Promotion subscale had a skewness of -.75 (*SE* = .10) and kurtosis of .61 (*SE* = .19), and the Prevention subscale had a skewness of -.04 (*SE* = .10) and kurtosis of -.60 (*SE* = .19).

Each of the DV measures also showed a pattern of non-normality. Scores on our measure for one's likelihood to seek treatment were non-normally distributed ($p < .05$), with a skewness of -.48 (*SE* = .10) and kurtosis of -.35 (*SE* = .19). The scores on both the Credibility and Expectancy subscales of the CEQ were also non-normally distributed ($p < .05$). The Credibility subscale had a skewness of -.66 (*SE* = .10) and kurtosis of .09 (*SE* = .19), and the Expectancy subscale had a skewness of -.47 (*SE* = .10) and kurtosis of -.56 (*SE* = .19). Scores on the IASMHS were similarly non-normally distributed ($p < .05$), with a skewness of -1.02 (*SE* = .10) and kurtosis of 2.09 (*SE* = .19). Last, scores on the OQ were found to be non-normally distributed ($p < .05$), with a skewness of .26 (*SE* = .10) and kurtosis of -.61 (*SE* = .19).

While the Shapiro-Wilk test of normality yielded results suggesting our measures were non-normally distributed, other standards for normality yielded different results. As proposed by Kim (2013), if the value of the skewness and kurtosis are within 3.29 times the standard error, then the skewness and kurtosis are suggested not to differ from normality in a meaningful way. Using this standard, it was determined that scores on both subscales of the RFQ, the Prevention subscale of the GRFM, and the OQ were normally distributed. Another standard suggests that skewness and kurtosis values ranging from -2 to 2 are within an acceptable range for normality (George & Mallery, 2010; Gravetter & Vallnau, 2014). With this standard, it was determined that the scores on the Promotion subscale of the GRFM, our measure for likelihood to seek treatment, and on both subscales of the CEQ were normally distributed. Given the shape of the distribution

of the remaining measure, the IASMHS, a square root transformation was performed yielding a normal distribution of scores by the -2 to 2 range standard. As such, all variables yielded normally distributed scores and only the IASMHS scores were transformed for analyses.

Internal consistency. Internal consistency was checked for each of the DVs as well as the RFQ and GRFM. For the RFQ, the Cronbach's alpha for the Promotion subscale was $\alpha = .70$, and for the Prevention subscale was $\alpha = .85$. For the GRFM, the Cronbach's alpha for the Promotion subscale was $\alpha = .94$, and for the Prevention subscale was $\alpha = .89$. For the likelihood to seek treatment measure, the Cronbach's alpha was $\alpha = .75$. For the CEQ, the Cronbach's alpha for the Credibility subscale was $\alpha = .87$, and for the Expectancy subscale was $\alpha = .89$. The Cronbach's alpha for the IASMHS was $\alpha = .90$, and for the OQ was $\alpha = .97$. The results indicate that all measures showed adequate levels of internal consistency.

Covariate checks. Responses to demographic, treatment history, and total distress (i.e., the OQ) variables were compared between the experimental conditions. Differences between experimental conditions on each scaled variable (i.e., interval or ratio data) were tested using a 4 x 4 between subjects factorial ANOVA. For participant age, significant differences were found between the GRFM groups, F (3, 647) = 15.68, $p < .01$, but not for the experimental conditions, F (3, 647) = .20, $p > .05$, or their interaction, F (9, 647) = 1.13, $p > .05$. For income, no differences were found between the GRFM groups, F (3, 645) = 1.22, $p > .05$, the experimental conditions, F (3, 645) = .02, $p > .05$, or their interaction F (9, 645) = .79, $p > .05$. For global distress, as measured by the OQ, significant differences were found between the GRFM groups, F (3, 643) = 88.04, $p < .01$, but not for the experimental conditions, F (3, 643) = .48, $p > .05$, or their interaction, F (9, 643) = .65, $p > .05$.

Differences between the experimental conditions on each categorical variable were tested with chi-square tests of independence. There were no significant differences in gender between the GRFM groups, $\chi^2 = 8.03$, $p > .05$, or the psychotherapy description conditions, $\chi^2 = 1.06$, $p > .05$. There was a significant difference found in ethnicity between the GRFM groups, $\chi^2 = 17.23$, $p < .01$, but not a significant difference found in gender between the psychotherapy description conditions, $\chi^2 = 9.54$, $p > .05$. There were no significant differences in level of education between the GRFM groups, $\chi^2 = 29.68$, $p > .05$, or the psychotherapy description conditions, $\chi^2 = 14.51$, $p > .05$. There was not a significant difference found in relationship status between the GRFM groups, $\chi^2 = 5.22$, $p > .05$, or between the psychotherapy description conditions, $\chi^2 = .66$, $p > .05$. There were no significant differences based on whether participants were currently attending therapy between the GRFM groups, $\chi^2 = 5.20$, $p > .05$, or the psychotherapy description conditions, $\chi^2 = 2.63$, $p > .05$. There was a significant difference based on participants' past treatment seeking behavior between the GRFM groups, $\chi^2 = 8.36$, $p < .05$, but not based on psychotherapy description conditions, $\chi^2 = 2.89$, $p > .05$. There were no significant differences based on participants' family treatment seeking behavior between the GRFM groups, $\chi^2 = 1.53$, $p > .05$, or the psychotherapy description conditions, $\chi^2 = 1.00$, $p > .05$. There was a significant difference found based on participants' current and/or past use of prescribed medication for psychological difficulties between GRFM groups, $\chi^2 = 11.91$, $p < .01$, but not between psychotherapy description conditions, $\chi^2 = 1.93$, $p > .05$. There were no significant differences based on whether participants had involuntarily sought treatment between the GRFM groups, $\chi^2 = 6.87$, $p > .05$, or the psychotherapy description conditions, $\chi^2 = .11$, $p > .05$.

According to these analyses, participants assigned to the four psychotherapy description conditions did not differ significantly in any of the demographic variables, mental health history,

or global distress, indicating the randomization process employed was successful. There were, however, differences in the GRFM groups based on many of these variables. These variables included age, global distress, ethnicity, past treatment seeking behavior, and current/past use of prescribed medication for a psychological problem. As such, these variables were included as covariates in subsequent analyses involving the GRFM.

Participant characteristics. The participants were, on average, 38.85-years-old (*SD* = 12.47), ranging from 18- to 80-years-old. They were primarily female (64.9% female, 34.7% male, 0.5% transgender), married or in a domestic partnership (49.6% married/domestic partnership, 38.2% single, never married, 8.7% divorced, 1.5% separated, 2% widowed), and Caucasian (76.3%). Participants further identified as either African-American (9%), Asian-American (6.5%), Hispanic (5%), Native American (0.5%) or bi/multiracial (2%). A majority of the participants had reportedly attained a bachelor's degree (37%), followed by those who had completed some college credit with no degree (22.6%), a master's degree (11.2%), an associate's degree (11.2%), high school diploma or equivalent (9%), completed trade/technical/vocational training (5%), a professional degree (2.1%), a doctorate degree (1.5%), and some high school, no diploma (0.5%). Participants were also asked to report the current employment status as well as their income. Participants reported that they were either employed for wages (64.6%), self-employed (13.3%), a homemaker (6.3%), retired (4.5%), a student (3.9%), out of work and looking for work (3.3%), unable to work (2.6%), out of work and not currently looking for work (1.2%), or employed by the military (0.3%). The average household income was $59,467 (*SD* = $48,922).

Participants were also asked to provide information related to their previous experiences with psychotherapy and medication for psychological difficulties; 13.9% of participants reported

that they were currently seeking counseling/psychotherapy, and 49.2% of participants indicated that they had previously sought counseling/psychotherapy. More than half of the participants (55.7%) indicated that they had family members who were currently or had previously seen a therapist, counselor, or other mental health provider. With respect to the use of medication for psychological difficulties, 24.1% of participants indicated they were currently taking prescribed medication for these difficulties, and 40.1% reported having previously used medication. Only 5% of participants reported that they had previously been mandated by a court or some other authoritative entity to seek counseling/psychotherapeutic services involuntarily.

Hypothesis 1: Differences between Psychotherapy Description Conditions in Likelihood to Seek Treatment

First, we expected that, overall, participants assigned to any of the three experimental psychotherapy description conditions (i.e., promotion-focused, prevention-focused, combination of the two) would endorse greater help-seeking intentions, better attitudes toward treatment seeking, and endorse greater credibility/expectancy beliefs in the treatment compared to those assigned to the control condition. Four independent samples t-tests, one for each of the dependent variables, were used to compare scores on these measures from the control group to scores from the experimental conditions. With respect to likelihood to seek treatment, scores for the control condition (M = 10.05, SD = 2.96) were not significantly different than the scores for the experimental conditions (M = 10.31**,** SD = 3.06), $t(661) = -0.93$, $p = .35$, $d = 0.09$. CEQ Credibility subscale scores between the control (M = 25.70**,** SD = 9.65) and the experimental conditions (M = 26.64**,** SD = 8.87) were also compared, but were not significantly different, $t(660) = -1.16$, $p = .25$, $d = 0.01$. With respect to the Expectancy subscale, scores of the control condition (M = 10.84**,** SD = 4.90) and the experimental conditions (M = 11.11**,** SD = 4.78) did

not differ significantly, $t(660) = -0.63$, $p = .53$, $d = 0.06$. Comparisons of means collected on the CEQ could not be compared to norms for the questionnaire, as the original article by Devilly and Borkovec (2000) did not report means for the two subscales. Last, we compared control condition scores on the IASMHS (note: all scores for the IASMHS are square-root transformed) ($M = 7.67$, $SD = 1.17$) and scores within the experimental conditions ($M = 7.82$, $SD = 1.05$); the results were similarly nonsignificant, $t(659) = -1.50$, $p = .13$, $d = 0.13$. The means reported by Mackenzie and colleagues (2004) for the measure (community sample, $M = 69.19$, $SD = 14.36$; replication sample, $M = 61.44$, $SD = 12.60$) were very similar to the means collected in the present study (i.e., prior to transformation; $M = 61.73$, $SD = 16.39$), indicating attitudes for this sample were not more or less negative compared to the normative sample.

Hypothesis 2 – Differences in Regulatory Focus and Their Impact on Treatment Seeking Intentions, Attitudes, and Expectations

It was hypothesized that participants' scores on the measures for likelihood to seek treatment, credibility of the psychotherapy condition, expectancy of effectiveness of the psychotherapy described, and attitudes toward treatment more generally, with respect to the four experimental conditions, would vary depending on the participants' measure of regulatory focus. We conceptualized the different levels of regulatory focus in a categorical manner, and in four groups, as High Promotion/High Prevention, High Promotion/Low Prevention, Low Promotion/High Prevention, and Low Promotion/Low Prevention. Consistent with the original literature on the GRFM (Lockwood et al., 2002), the Promotion subscale average was greater ($M = 6.42$) than the Prevention subscale average ($M = 5.12$), in which Lockwood and colleagues found means for the Promotion subscale to be $M = 6.90$, and for the Prevention subscale, $M = 5.31$. A median split method was used for the Promotion and Prevention subscales of the GRFM

to classify participants into these four groups. Means and standard deviations for each of the subscales for the four groups can be found below in Table 1.

Table 1: Means and Standard Deviations Across GRFM Groups for each GRFM Subscale

Group	Subscale	Mean	Standard Deviation
High Promotion; High Prevention	Promotion	69.29	6.47
	Prevention	60.27	8.76
High Promotion; Low Prevention	Promotion	70.06	6.61
	Prevention	31.45	8.63
Low Promotion; High Prevention	Promotion	47.04	11.34
	Prevention	57.86	8.79
Low Promotion; Low Prevention	Promotion	45.79	11.39
	Prevention	34.75	9.38

Note: GRFM = General Regulatory Focus Measure (Lockwood et al., 2002)

Four 4x4 factorial ANOVAs (i.e., one for each dependent variable), were conducted to test both the main and interaction effects of the four regulatory focus groups and the four psychotherapy description conditions on the dependent variables. Based on previous covariate analyses, participants' age, ethnicity, OQ scores, past treatment seeking behavior, and the use of psychotropic medications (both past and present), were included as covariates in the analyses.

With respect to our measure of likelihood to seek treatment, it was determined that there was no main effect with the psychotherapy description conditions, $F(3, 634) = 0.25$, $p = .86$, $\eta^2 = .00$, but we did observe a significant main effect with the four GRFM groups, $F(3, 634) = 7.55$, $p < .001$, $\eta^2 = .03$. We did not, however, see a significant interaction effect between the description conditions and the GRFM groups on likelihood to seek treatment, $F(9, 634) = 0.31$, $p = .97$, $\eta^2 = .00$.

Due to the presence of covariates, a Fisher's LSD pairwise comparison was utilized to observe the mean differences between the GRFM groups with respect to total likelihood. For descriptive statistics of each GRFM group for Total Likelihood, see Table 2. The High Promotion/High Prevention group differed significantly from both the Low Promotion/High Prevention ($M_{diff} = 0.95$; $p < .01$) and Low Promotion/Low Prevention ($M_{diff} = 1.36$; $p < .001$), but not the High Promotion/Low Prevention group ($M_{diff} = 0.09$; $p = .80$). The High Promotion/Low Prevention group differed significantly from the Low Promotion/Low Prevention group ($M_{diff} = 1.27$; $p < .001$), and from the Low Promotion/High Prevention group ($M_{diff} = 0.86$; $p < .02$). The Low Promotion/High Prevention group did not significantly differ from the Low Promotion/Low Prevention group ($M_{diff} = .41$; $p = .23$).

Table 2. Means, Standard Deviations, and Sample Sizes Across GRFM Groups for Total Likelihood

GRFM Group	Mean	Std. Deviation	N
High Prom; High Prev	11.03	2.77	149
High Prom; Low Prev	10.40	2.89	169
Low Prom; High Prev	10.22	3.24	183
Low Prom; Low Prev	9.36	3.03	154

Note: GRFM = General Regulatory Focus Measure (Lockwood et al., 2002)

With the CEQ, we employed a 4x4 ANOVA for each of the two subscales: Credibility and Expectancy. There was not a significant main effect for psychotherapy description conditions on the Credibility subscale, $F(3, 634) = 1.17$, $p = .32$, $\eta^2 = .01$, but there was a significant main effect for the GRFM groups on Credibility scores, $F(3,634) = 13.38$, $p < .001$, $\eta^2 = .06$. However, there was not a significant interaction effect between the conditions and GRFM groups for Credibility, $F(9, 634) = 0.30$, $p = .98$, $\eta^2 = .00$. Similar results were found with respect to the Expectancy subscale with no significant main effect for psychotherapy description conditions, $F(3, 634) = 0.44$, $p = .72$, $\eta^2 = .00$, and a statistically significant main effect for GRFM groups, $F(3, 634) = 13.30$, $p < .001$, $\eta^2 = .06$, but no significant interaction effect, $F(9, 634) = 0.49$, $p = .88$, $\eta^2 = .01$.

Due to the presence of covariates, a Fisher's LSD pairwise comparison was utilized to observe the mean differences between the GRFM groups with respect to both Credibility and Expectancy. For descriptive statistics for each GRFM group for Credibility, see Table 3; for Expectancy, see Table 4. For Credibility, there was a significant difference between the High Promotion/High Prevention group and the Low Promotion/High Prevention ($M_{diff} = 4.08$; $p < .001$) and Low Promotion/Low Prevention ($M_{diff} = 5.25$; $p < .001$) groups, but not the High Promotion/Low Prevention group ($M_{diff} = 0.34$; $p = .75$). There was also a significant difference between the High Promotion/Low Prevention group and both the Low Promotion/High Prevention ($M_{diff} = 3.74$, $p = .001$) and Low Promotion/Low Prevention ($M_{diff} = 4.91$, $p < .001$) groups. There was not a significant difference between the Low Promotion/High Prevention group and the Low Promotion/Low Prevention group ($M_{diff} = 1.17$, $p = .25$). For Expectancy, there was a significant difference between the High Promotion/High Prevention group and both the Low Promotion/High Prevention ($M_{diff} = 2.43$, $p < .001$) and the Low Promotion/Low

Prevention (M_{diff} = 2.72, p < .001), but not for the High Promotion/Low Prevention group (M_{diff} = .30, p = .59). There was also a significant difference between the High Promotion/Low Prevention group and both the Low Promotion/High Prevention (M_{diff} = 2.13, p < .001) and the Low Promotion/Low Prevention (M_{diff} = 2.42, p < .001) groups. There was not a significant difference between the Low Promotion/High Prevention group and the Low Promotion/Low Prevention group (M_{diff} = .29, p = .59).

Table 3. Means, Standard Deviations, and Sample Sizes Across GRFM Groups for Credibility Subscale of CEQ

GRFM Group	Mean	Std. Deviation	N
High Prom; High Prev	28.73	7.98	149
High Prom; Low Prev	29.05	8.78	169
Low Prom; High Prev	24.32	8.31	183
Low Prom; Low Prev	23.95	9.89	154

Note: GRFM = General Regulatory Focus Measure (Lockwood et al., 2002)

Table 4. Means, Standard Deviations, and Sample Sizes Across GRFM Groups for Expectancy Subscale of CEQ

GRFM Group	Mean	Std. Deviation	N
High Prom; High Prev	12.28	4.51	149
High Prom; Low Prev	12.63	4.47	169
Low Prom; High Prev	9.61	4.39	183
Low Prom; Low Prev	9.95	5.05	154

Note: GRFM = General Regulatory Focus Measure (Lockwood et al., 2002)

Another 4 x 4 ANOVA was conducted to test whether participants' attitudes, as measured by the IASMHS, differed between psychotherapy descriptions and GRFM groups. Scores for the IASMHS were all square-root transformed. There was not a significant main effect for psychotherapy description conditions on attitudes, $F(3, 634) = 0.68$, $p = .56$, $\eta^2 = .00$. We did find a statistically significant main effect for GRFM groups on attitudes, $F(3, 634) = 3.77$, $p < .02$, $\eta^2 = .02$, but the interaction was not significant, $F(9, 634) = 0.68$, $p = .73$, $\eta^2 = .01$.

Due to the presence of covariates, a Fisher's LSD pairwise comparison was utilized to observe the mean differences between the GRFM groups with respect to scores on the IASMHS. For descriptive statistics of the GRFM groups for the IASMHS, see Table 5. There were no significant differences between the High Promotion/High Prevention group and any of the other groups: High Promotion/Low Prevention ($M_{diff} = -0.13$, $p = .29$), Low Promotion/High Prevention ($M_{diff} = 0.17$, $p = .11$), and Low Promotion/Low Prevention ($M_{diff} = 0.22$, $p = .07$). There was a significant difference between the High Promotion/Low Prevention group and both the Low Promotion/High Prevention ($M_{diff} = .30$, $p < .02$) and Low Promotion/Low Prevention ($M_{diff} = .34$, $p < .01$) groups. There was not a significant difference between the Low Promotion/High Prevention group and the Low Promotion/Low Prevention group ($M_{diff} = .04$, $p = .72$).

Table 5. Means, Standard Deviations, and Sample Sizes Across GRFM Groups for IASMHS Scores

GRFM Group	Mean	Std. Deviation	N
High Prom; High Prev	7.78	0.99	149
High Prom; Low Prev	8.13	1.12	169
Low Prom; High Prev	7.52	1.01	183
Low Prom; Low Prev	7.72	1.12	154

Note: GRFM = General Regulatory Focus Measure (Lockwood et al., 2002)

Exploratory Analyses

It is possible that in our analyses for the first hypothesis, results were confounded by the relatively high level of treatment seeking in our sample. As such, we repeated the four independent samples t-tests for each of the dependent variables, but split each of the analyses by those that had previously sought or are currently seeking treatment, and those that have never sought treatment. With respect to likelihood to seek treatment, scores for those that had sought treatment at any point were not significantly different between the control (M = 10.89, SD = 2.88) and experimental (M = 11.22, SD = 2.91) conditions, $t(342) = -0.88$, $p = .38$. For those that had never sought treatment, scores for the control (M = 9.19, SD = 2.82) also did not significantly differ from the experimental conditions (M = 9.30, SD = 2.92), $t(313) = -0.32$, $p = .75$. We also repeated these analyses for likelihood to seek treatment by utilizing only the first question of the three in our measure for total likelihood. The first question pertains to whether or not the individual would seek the described psychotherapy right now. Similar, non-significant, results were found for both those that have sought treatment, $t(342) = -0.35$, $p = .73$, and those that have not, $t(313) = -0.95$, $p = .34$.

With the IASMHS and those that have sought treatment, the control condition (M = 7.94, SD = 1.15) did not significantly differ from the experimental conditions (M = 8.08, SD = 0.94), $t(342) = -1.15$, $p = .25$. For those that had never sought treatment, the control condition (M = 7.40, SD = 1.14) did not significantly differ from the experimental conditions (M = 7.53, SD = 1.09), $t(313) = -0.98$, $p = .33$. For the Credibility subscale of the CEQ and for those that have sought treatment, the control condition (M = 26.82, SD = 8.70) did not significantly differ from the experimental conditions (M = 28.05, SD = 8.46), $t(342) = -1.15$, $p = .25$. For those that have never sought treatment, the control condition (M = 24.52, SD = 10.53) did not significantly differ

from the experimental conditions (M = 25.14, SD = 9.06), t(313) = -0.51, p = .61. For the Expectancy subscale of the CEQ and for those that have sought treatment, the control condition (M = 11.07, SD = 4.80) did not significantly differ from the experimental conditions (M = 11.20, SD = 4.56), t(342) = -0.22, p = .83. For those that have never sought treatment, the control condition (M = 10.56, SD = 5.03) did not significantly differ from the experimental conditions (M = 11.07, SD = 4.98), t(313) = -0.80, p = .42.

In conducting the 4x4 ANOVAs we were primarily concerned with testing for significant interactions. It is possible that given the number of covariates that were included in the models, there was not adequate power to detect significant interactions. Thus, we repeated the 4x4 ANOVAs from Hypothesis 2, but only included the interactions in the model. In doing this for our measure for likelihood to seek treatment, we observed a significant interaction effect, F(15, 634) = 1.82, p = .03, η^2 = .04. We also found a significant interaction effect for the Credibility subscale, F(15, 634) = 3.16, p < .001, η^2 = .07, as well as the Expectancy subscale, F(15, 634) = 3.16, p < .001, η^2 = .07, of the CEQ. We did not find a significant interaction effect for the IASMHS, F(15, 634) = 1.30, p = .20, η^2 = .03.

We followed these analyses with post-hoc comparisons of the four vignette conditions within GRFM groups when significant interaction effects. For these comparisons, four one-way ANOVAs (one for each dependent variable) were completed separately for each of the GRFM groups. It was expected that participants randomized to the condition that matched the GRFM group would endorse the most positive attitudes toward the described treatments.

With respect to likelihood to seek treatment, the means of the experimental conditions were compared to each other separately for the four GRFM groups (High Promotion/High Prevention. High Promotion/Low Prevention, Low Promotion/High Prevention, Low

Promotion/Low Prevention). For the descriptive statistics of each group, see Table 6. In the High Promotion/High Prevention group, differences between means for the conditions were not statistically significant, $F(3, 146) = 0.48$, $p = .70$, $\eta^2 = .01$. In the High Promotion/Low Prevention group, means between the conditions were not statistically significant, $F(3, 170) = 0.61$, $p = .61$, $\eta^2 = .01$. In the Low Promotion/High Prevention group, differences in means across conditions were not statistically significant, $F(3, 180) = 0.22$, $p = .88$, $\eta^2 = .00$. Differences in means within the Low Promotion/Low Prevention group were not statistically significant, $F(3, 151) = 0.25$, $p = .86$, $\eta^2 = .01$.

Table 6. *Means, Standard Deviations, and Sample Sizes for Scores on Measure for Total Likelihood to Seek Treatment*

GRFM Group	Condition	Mean	Std. Deviation	N
High Promotion; High Prevention	Control	10.73	2.61	37
	Promotion-focused	11.29	2.94	42
	Prevention-focused	10.72	3.12	32
	Combination	11.29	2.44	38
High Promotion; Low Prevention	Control	10.07	2.99	42
	Promotion-focused	10.24	2.42	38
	Prevention-focused	10.84	3.36	50
	Combination	10.33	2.55	39
Low Promotion; High Prevention	Control	10.06	3.11	48
	Promotion-focused	9.96	3.40	45
	Prevention-focused	10.38	3.36	48
	Combination	10.50	3.17	42
Low Promotion/Low Prevention	Control	9.37	3.04	38
	Promotion-focused	9.41	3.44	37
	Prevention-focused	9.03	2.92	37
	Combination	9.62	2.80	42

Note: GRFM = General Regulatory Focus Measure (Lockwood et al., 2002).

Next, means on the Credibility subscale of the CEQ were compared between the four conditions within each GRFM group. For descriptive statistics of each group, see Table 7. In the High Promotion/High Prevention group, differences in the means between conditions were not statistically significant, $F(3, 146) = 0.67$, $p = .57$, $\eta^2 = .01$. In the High Promotion/Low Prevention group, differences in the means between conditions were not significantly different, $F(3, 169) = 0.20$, $p = .90$, $\eta^2 = .00$. Differences between means in the Low Promotion/High Prevention group were also not statistically significant, $F(3, 180) = 0.40$, $p = .75$, $\eta^2 = .01$. Differences in the means for the Low Promotion/Low Prevention group were not statistically significant, $F(3, 151) = 1.04$, $p = .38$, $\eta^2 = .02$.

Table 7. Means, Standard Deviations, and Sample Sizes for Scores on Credibility Subscale of CEQ

GRFM Group	Condition	Mean	Std. Deviation	N
High Promotion/High Prevention	Control	28.14	8.01	37
	Promotion-focused	28.98	7.28	42
	Prevention-focused	27.56	9.14	32
	Combination	30.03	7.74	38
High Promotion/Low Prevention	Control	28.79	8.97	42
	Promotion-focused	28.13	8.69	38
	Prevention-focused	29.64	9.06	50
	Combination	29.46	8.55	39
Low Promotion/High Prevention	Control	24.04	8.89	48
	Promotion-focused	23.60	8.60	45
	Prevention-focused	24.27	7.60	48
	Combination	25.48	8.28	42
Low Promotion/Low Prevention	Control	21.97	11.36	38
	Promotion-focused	24.97	10.26	37
	Prevention-focused	23.11	9.56	37
	Combination	25.60	8.22	42

Note: GRFM = General Regulatory Focus Measure (Lockwood et al., 2002).

Means on the Expectancy subscale of the CEQ were then compared within each of the GRFM groups between the experimental conditions. For descriptive statistics of each group, see Table 8. In the High Promotion/High Prevention group, differences in means between the four experimental conditions were not statistically significant, $F(3, 146) = 0.79$, $p = .50$, $\eta^2 = .02$. Differences in the means within the High Promotion/Low Prevention group were not statistically significant, $F(3, 169) = 0.59$, $p = .62$, $\eta^2 = .01$. Differences in the mean scores in the Low Promotion/High Prevention group were not statistically significant, $F(3, 180) = 0.32$, $p = .81$, $\eta^2 = .01$. Differences in the means for the Low Promotion/Low Prevention group were not statistically significant, $F(3, 151) = 0.70$, $p = .55$, $\eta^2 = .01$.

Table 8. Means, Standard Deviations, and Sample Sizes for Scores on Expectancy Subscale of CEQ

GRFM Group	Condition	Mean	Std. Deviation	N
High Promotion/ High Prevention	Control	12.35	4.04	37
	Promotion-focused	12.79	3.94	42
	Prevention-focused	11.47	5.34	32
	Combination	12.32	4.87	38
High Promotion/ Low Prevention	Control	12.36	4.61	42
	Promotion-focused	12.45	3.84	38
	Prevention-focused	13.26	4.61	50
	Combination	12.31	4.80	39
Low Promotion/ High Prevention	Control	9.54	4.41	48
	Promotion-focused	9.40	4.37	45
	Prevention-focused	9.38	4.42	48
	Combination	10.17	4.45	42
Low Promotion/ Low Prevention	Control	9.24	5.73	38
	Promotion-focused	10.03	5.65	37
	Prevention-focused	9.65	4.61	37
	Combination	10.81	4.19	42

Note: GRFM = General Regulatory Focus Measure (Lockwood et al., 2002).

Discussion

The purpose of the present study was to empirically examine whether the application of RFT (Higgins, 1997), in conjunction with the ideas of *regulatory fit* (Higgins, 2001), to various descriptions of psychotherapy could positively influence treatment-seeking attitudes in a general population sample. While there have been previous attempts to influence constructs such as stigma, attitudes, and intentions to seek treatment (e.g., Brecht & Swift, 2016; Gallo et al., 2015; Buckley & Malouff, 2005), there is a lack of investigation into how individuals might respond differently to psychotherapy-related materials or messages based on their own, unique characteristics. In utilizing an experimental design that measured participants' propensity for different self-regulatory strategies and pairing them with differing vignettes based on those strategies, we were able to empirically examine whether differentially valenced descriptions of psychotherapy had an effect on treatment-seeking intentions and attitudes.

With the first hypothesis we aimed to examine whether participants differed in treatment-seeking intentions, beliefs about psychotherapy, and attitudes toward psychotherapy when exposed to a neutral description of psychotherapy compared to descriptions of psychotherapy emphasizing a decrease in negative affect, increase in positive affect, or both. The results indicated that mean scores for the control condition did not significantly differ from the mean scores on the experimental conditions for any of our dependent variables. These findings are generally inconsistent with previous research regarding the use of vignettes that were differentially framed based on RFT to influence attitudes or behavior (e.g., Higgins, Marguc, & Scholer, 2012; Cesario, Grant, & Higgins, 2004). The primary difference between previous research in this vein and the current study is the application of RFT to a more clinical context, directly targeted toward a general population that may or may not be seeking treatment for

psychological problems. The majority of the extant literature with experimental designs targeting treatment-seeking attitudes has used psycho-educational materials (Brecht & Swift, 2016; Gallo et al., 2015; Buckley & Malouff, 2005). These educational materials have generally been shown to be effective in improving attitudes (Brecht & Swift, 2016; Gallo et al., 2015; Buckley & Malouff, 2005); however, to date, the materials that have been tested have not focused on an individual's propensity for different self-regulatory strategies. The results of this study suggest that perhaps adding promotion and or prevention focused information to the psychotherapy conditions does not have an added benefit above and beyond psycho-education alone.

With the second hypothesis we aimed to test whether individual differences in regulatory focus would differentially impact treatment-seeking intentions and attitudes based on the level of regulatory fit. While we did find significant main effects for the different GRFM groups across all of the dependent variables, we did not find a main effect for the experimental conditions or any significant interaction effects across all of the dependent variables. Generally, we saw a pattern of superior attitudes and higher rates of intent to seek treatment in those groups with a more promotion-focused orientation. This would make sense considering Higgins (1997) originally theorized that those with a greater promotion-focus would tend to be more approach- and goal-oriented. Their increased tendency to seek out and achieve goals introduces greater rates of positive reinforcement, thus further increasing goal-directed activity and the experience of joy or happiness. Additionally, in the study completed by Katz, Catane, and Yovel (2015), those with a greater promotion-focus were found to be more likely to engage and sustain attention in a given task, suggesting that those with greater levels of promotion focus may simply be more likely to want or try to engage in psychotherapy, regardless of its description.

In our exploratory analyses, we tested whether the interactions would be significant if only the interactions were included in the 4x4 ANOVA model. We found significant interactions between levels of regulatory focus and likelihood to seek treatment, credibility, and expectancy beliefs, but not for attitudes. Although these interactions were significant, the post-hoc analyses revealed that none of the predictions regarding regulatory fit and its expected impact on participants' responses to the dependent variables were supported.

While targeting interventions based on *regulatory fit* has been shown to be effective in research designs within a clinical context in other studies (e.g., Strauman et al., 2015; Vieth et al., 2006), the existing studies have more specifically targeted the reduction of mood/anxiety symptoms, rather than attitudes toward treatment-seeking. The results of the present study would seem to suggest that the use of RFT and the application of *regulatory fit* to influencing treatment-seeking behavior may be less effective. Specifically, there is a stark difference in manipulating one's levels of mood/anxiety versus trying to change one's attitudes and expectations toward psychotherapy, belief in its credibility, and treatment seeking intentions. Affectivity often waxes and wanes between individuals on a daily basis, often depending on one's present circumstances. In contrast, one's beliefs about a specific construct or activity, in this case psychotherapy, are more resistant to change.

Limitations of the Current Study

The current study has several limitations that should be considered when interpreting the results. First, the data were collected through MTurk. While MTurk is an often used and statistically supported method of data collection in the social sciences, it is an inherently impersonal method of survey and experimental manipulation administration. In our study, the MTurk workers may have haphazardly read and answered the various questionnaires and/or the

psychotherapy conditions. This is particularly important given that the experimental manipulations in our study were nuanced and would have required adequate attention in order to have an effect. To date, no studies that have been conducted attempting to test a manipulation based on RFT have used a purely online data collection methodology. This impersonal methodology may have rendered results less significant than would have been collected otherwise. Future, in-person, laboratory research testing the effectiveness of tailored psychotherapy descriptions may be warranted.

Previous research that has utilized priming techniques to influence one's level of regulatory focus has been much more interactive and involved compared to the conditions utilized in the present study. For example, Higgins and colleagues (1994) first had their participants write about how either their hopes and goals had changed over time (i.e., promotion-focused priming) or how their sense of duty and obligation had changed over time (i.e., prevention-focused priming). This interactive component at the onset of the study, combined with their dependent variable being the ability to recall specific strategies used within a story, is likely to produce larger differences between groups compared to utilizing questionnaires and a short vignette. As another example, Shah, Higgins, and Friedman (1998) utilized manipulations to prime participants' regulatory focus that framed a task in which the participant was instructed to engage. That task produced immediate positive reinforcement in the form of monetary gain. In the present study we only measured the level of participants' regulatory focus and priming their regulatory focus and including an interactive component following that priming could lead to more significant findings.

The current study was also limited based on the measure that was used to assess regulatory fit. There are a wide variety of methodologies that have been used to measure various

constructs within RFT, and there is no consensus as to which of the measures provides the best results for each of these individual constructs (see Haws, Dholakia, & Bearden, 2010). At the planning stage of the present study, the use of the RFQ (Higgins et al., 2001) was presumed to be the best measure of regulatory focus for our purposes due to its theoretical underpinnings; however, in our analyses of the measures, the GRFM (Lockwood et al., 2002) appeared to be the more robust and psychometrically sound measure for our study. Even though it was determined to be a more appropriate measure than the RFQ for our study, the GRFM is not without its limitations. For one, the GRFM and its usage has largely been limited to personality and social psychology research – rarely, if ever, has it been appropriately applied to clinical contexts. Further, while it may be theoretically informed, the specific construct within RFT that it taps into remains unclear, and its claims at targeting 'chronic' regulatory focus is inconsistent with the original work on chronic regulatory focus (e.g., Shah, Higgins, & Friedman, 1998). Additionally, the original article in which the GRFM was designed (i.e., Lockwood et al., 2002) did not adequately explain its construction or its associated statistical analyses. While it has been widely used within personality and social psychology, the majority of the literature that looks at the measure critically has been completed by authors publishing review articles of measures of regulatory focus (see: Haws et al., 2010). The use of a vignette or some other framing aimed at priming a specific state of regulatory focus (e.g., Higgins et al., 1994; Shah, Higgins, & Friedman, 1998) may be a superior strategy compared to simply measuring one's 'baseline' regulatory focus with a measure like the GRFM. Further, the GRFM is unique in that most of its items indicate a trait that would typically be desirable, meaning scores may otherwise be lower if the items were not framed in such a way. As such, measuring individual levels of social

desirability in conjunction with measuring levels of regulatory focus with the GRFM could prove useful.

The current study was also limited due to the demographic and mental health characteristics of the sample that was recruited. For example, 13.9% of the sample reported they were currently seeking psychotherapy, and nearly half of the sample (49.2%) indicated that they had previously sought psychotherapeutic services. These percentages are markedly higher than percentages of treatment use that have been reported for the general population (about 3% according to Olfson & Marcus, 2010). The high level of current and past treatment use by our sample indicates the presence of more positive intentions, attitudes, expectations, and credibility beliefs were held by our sample compared to other non-treatment-seeking groups. If our participants held generally positive attitudes toward psychotherapy prior to participating in our study, it may have been more difficult for the manipulation to have an impact on the already positive attitudes. Future research should be conducted with samples that have not previously used psychotherapy.

Future Research Directions

With respect to the findings and limitations of the present study, a number of future research directions may prove valuable. Our results indicated that the constructs within the GRFM are likely valid, and previous research indicates that one's levels of regulatory foci may be temporarily manipulated. As such, further exploration into whether or not the manipulation of one's self-regulatory strategies or preferences can translate into influencing propensity to seek treatment, or alter attitudes toward psychotherapy, is warranted. One way to potentially manipulate one's self-regulatory strategies or preferences would be to have participants interact more within the manipulations. For example, participants may be instructed to write about, or

contrast, their perceptions of the psychotherapy described. Prior to describing the therapy, it may also be effective to prime a specific state of regulatory focus through the use of writing about one's hopes/dreams or duties/obligations (e.g., Higgins et al., 1994). A second way would be to have participants read about others that have previously utilized treatments with different vignettes based upon regulatory foci, then having participants identify the key elements of the therapy described.

A second future direction for this research would be to create and test more detailed or "real life" versions of the psychotherapy advertisements. Rather than simply reading a short treatment description, participants could be exposed to visual advertisements in the form of videos or mock websites that are tailored with respect to different self-regulatory strategies. These manipulations may be more effective than the manipulations used in the present study due to the key human element that is ubiquitous within the realm of psychotherapy. Creating a visual representation of a therapy may make said therapy more approachable to the individuals exposed to the advertisements.

A third future direction is to test other educational and advertisement materials outside the area of RFT. For example, considering the discrepancy in treatment seeking based on gender (Addis & Mahalik, 2003; Courtenay, 2000; Galdas, Cheater, & Marshall, 2005), advertisements tailored to the barriers faced by males more specifically may increase treatment seeking within this specific demographic. Additionally, symptom-specific advertisements may be useful given the differential responses to treatment based on symptoms (e.g., Strauman et al., 2015). Other variables that may be useful to tailor psychotherapy advertisements to could include levels of neuroticism (see: Barlow et al., 2014) or levels of behavioral inhibition/activation (see: Haws et al., 2010).

Conclusions

Unfortunately, the majority of individuals with a diagnosable mental illness do not seek mental health services (Olfson, Blanco, & Marcus, 2016; Bose et al., 2016). Previous research has tested several different methods for advertising psychotherapy with the hope to increase treatment seeking by those in need (e.g., Brecht & Swift, 2016; Gallo et al., 2015; Buckley & Malouff, 2005); however, this previous research has produced mixed results. The purpose of this study was to test whether a greater improvement in attitudes, intentions, expectations, and credibility beliefs could be seen if the psychotherapy advertisements are tailored to an individual's regulatory focus. We found that our application of RFT to various psychotherapy descriptions did not produce significantly different treatment-seeking intentions or attitudes compared to a control description. Further, we found that facilitating regulatory fit with our participants dependent on their levels of regulatory foci with our differentially framed descriptions did not significantly impact intentions or attitudes. Considering the limitations of our study, as well as the apparent small impact our descriptions had on participants, our results may best serve to inform researchers on what manipulations may not have a significant impact with respect to RFT. While our attempts to positively influence treatment-seeking behaviors and attitudes toward treatment may have been unsuccessful, similar research pursuits may find this study particularly useful in creating future research methodologies to address the same aims of the present study.

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Appendix A
Informed Consent Page

You are invited to participate in a research study examining attitudes toward psychotherapy.

WHAT IS INVOLVED IN THE STUDY?
If you decide to participate, you will first be asked to provide basic demographic information regarding your age, gender, ethnicity, etc. and about your experiences related to professional psychological help-seeking. You will then be provided a short questionnaire regarding past socialization experiences and how you tend to go about achieving new goals. Immediately following, you will be presented with a description of psychotherapy and its various treatment goals. Last, you will be asked to complete a few short questionnaires regarding your beliefs and attitudes toward the treatment descriptions. The entire process should take around 10 to 20 minutes to complete. If you start the survey, you may skip any question you would like and you may stop participating at any time. If you do elect to stop participating, you will not be paid for completion of the study.

RISKS:
This study involves minimal risk. You will only be asked questions about your attitudes and beliefs related to psychotherapy and your pursuit of goals. If, at any time, you find the questions distressing, you can discontinue the survey. Additionally, at the end of the survey you will be given contact information if you find that you are experiencing significant amounts of distress.

BENEFITS TO TAKING PART IN THE STUDY:
Should you complete the study in its entirety, you will be compensated in the amount of $0.50 through Amazon's MTurk. In order to receive compensation, you must complete the survey. Throughout the study, there contains several questions that are designed to ensure you are responding to the questions in a thoughtful way. If your responses indicate that you are not thoughtfully completing the survey, you will not be compensated.

On a larger scale, the results of this study may also facilitate an increase in professional help-seeking in those with psychopathological symptoms.

CONFIDENTIALITY:
You will not be asked to provide any identifying information (e.g., name, birthdate) for this study. As such, your responses will in no way be linked to your identity. All information gathered from MTurk and Qualtrics will be provided to the researchers with no way to identify you.

YOUR RIGHTS AS A RESEARCH PARTICIPANT:
Participation in this study is entirely voluntary. You have the right not to participate at all or to discontinue the study at any time. Deciding not to participate or choosing to discontinue the study will not result in any penalty or loss of benefits to which you are entitled.

CONTACTS FOR QUESTIONS OR PROBLEMS?

You may contact Jake Park at parkjake@isu.edu if you have any questions, comments, or concerns related to the study. You may also contact Dr. Joshua Swift at swifjosh@isu.edu.

Contact Tom Bailey, Committee Manager of the HSRO at (208) 282-2179 or humsubj@isu.edu if you have any questions or concerns about your rights as a research participant.

Appendix B

Regulatory Focus Questionnaire (RFQ) – unmodified original

This set of questions asks you about specific events in your life. Please indicate your answer to each question by circling the appropriate number below it.

1. Compared to most people, are you typically unable to get what you want out of life? (R)

1	2	3	4	5
Never or seldom		sometimes		very often

2. Growing up, would you ever ``cross the line'' by doing things that your parents would not tolerate? (R)

1	2	3	4	5
Never or seldom		sometimes		very often

3. How often have you accomplished things that got you ``psyched'' to work even harder?

1	2	3	4	5
Never or seldom		a few times		many times

4. Did you get on your parents' nerves often when you were growing up? (R)

1	2	3	4	5
Never or seldom		sometimes		very often

5. How often did you obey rules and regulations that were established by your parents?

1	2	3	4	5
Never or seldom		sometimes		very often

6. Growing up, did you ever act in ways that your parents thought were objectionable? (R)

1	2	3	4	5
Never or seldom		sometimes		very often

7. Do you often do well at different things that you try?

1	2	3	4	5
Never or seldom		sometimes		very often

8. Not being careful enough has gotten me into trouble at times. (R)

1	2	3	4	5
Never or seldom		sometimes		very often

9. When it comes to achieving things that are important to me, I find that I don't perform as well as I ideally would like to do. (R)

1	2	3	4	5
Never true		sometimes true		very often true

10. I feel like I have made progress toward being successful in my life.

1	2	3	4	5
Certainly false				certainly true

11. I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them. (R)

1	2	3	4	5
Certainly false				certainly true

Note: All questions marked with (R) *indicate the item is reverse-scored*

Appendix C

General Regulatory Focus Measure

Promotion/Prevention Scale

Using the scale below, please write the appropriate number in the blank beside each item.

1 2 3 4 5 6 7 8 9

Not at all true of me Very true of me

1. In general, I am focused on preventing negative events in my life.
2. I am anxious that I will fall short of my responsibilities and obligations.
3. I frequently imagine how I will achieve my hopes and aspirations
4. I often think about the person I am afraid I might become in the future.
5. I often think about the person I would ideally like to be in the future.
6. I typically focus on the success I hope to achieve in the future.
7. I often worry that I will fail to accomplish my *academic* (life) goals.
8. I often think about how I will achieve *academic success* (success in my life).
9. I often imagine myself experiencing bad things that I fear might happen to me.
10. I frequently think about how I can prevent failures in my life.
11. I am more oriented toward preventing losses than I am toward achieving gains.
12. My major goal in *school* (life) right now is to achieve my ambitions.
13. My major goal in *school* (life) right now is to avoid becoming a failure.
14. I see myself as someone who is primarily striving to reach my "ideal self" – to fulfill my hopes, wishes, and aspirations.
15. I see myself as someone who is primarily striving to become the self I "ought" to be – to fulfill my duties, responsibilities, and obligations.
16. In general, I am focused on achieving positive outcomes in my life.
17. I often imagine myself experiencing good things that I hope will happen to me.
18. Overall, I am more oriented toward achieving success than preventing failure.

Note: All words in *italics* are the original wording of the measure that were changed, and those words in parentheses and what these words were changed to for the purpose of our study.

Appendix D

Likelihood to Seek Treatment

How likely are you to seek psychotherapy or counseling from a mental health professional right now?

1	2	3	4	5
Very unlikely				Very likely

How likely would you be in the future to seek psychotherapy or counseling from a mental health professional if you were experiencing a psychological problem?

1	2	3	4	5
Very unlikely				Very likely

How likely would you be in the future to refer a friend to seek psychotherapy or counseling from a mental health professional if they were experiencing a psychological problem?

1	2	3	4	5
Very unlikely				Very likely

Appendix E

Credibility/Expectancy Questionnaire

We would like you to indicate below how much you believe, *right now*, **that the therapy you just read about would help with any psychological problems you have now, or problems you may have in the future.** Belief usually has two aspects to it: (1) what one *thinks* will happen and (2) what one *feels* will happen. Sometimes these are similar; sometimes they are different. Please answer the questions below. In the first set, answer in terms of what you *think*. In the second set answer in terms of what you really and truly *feel*.

Set 1

1. At this point, how logical does **the therapy described to you seem**?

   0 1 2 3 4 5 6 7 8 9 10

   Not at all logical somewhat logical very logical

2. At this point, how successful do you think **this treatment will be in reducing your psychological symptoms?**

   0 1 2 3 4 5 6 7 8 9 10

   Not at all useful somewhat useful very useful

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

   0 1 2 3 4 5 6 7 8 9 10

   Not at all confident somewhat confident very confident

4. **If you were to engage in the therapy described**, how much improvement in your psychological symptoms do you think will occur?

   0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Set 2

For this set, close your eyes for a few moments, and try to identify what you really feel **about the described therapy** and its likely success. Then answer the following questions.

1. At this point, how much do you really *feel* that therapy will help you to reduce your psychological symptoms?

   0 1 2 3 4 5 6 7 8 9 10

Not at all somewhat Very much

2. By the end of the therapy period, how much improvement in your symptoms do you really *feel* will occur?

   0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Note: All sections bolded indicate changes made to the original measure to fit the present study

Appendix F

Inventory of Attitudes toward Seeking Mental Health Services (IASMHS)

1. There are certain problems which should not be discussed outside of one's immediate family (R)
2. I would have a very good idea of what to do and who to talk to if I decided to seek professional help for psychological problems
3. I would not want my best friend to know if I were suffering from psychological problems (R)
4. Keeping one's mind on a job is a good solution for avoiding personal worries and concerns (R)
5. If good friends asked my advice about a psychological problem, I might recommend that they see a professional
6. Having been mentally ill carries with it a burden of shame (R)
7. It is probably best not to know everything about oneself (R)
8. If I were experiencing a serious psychological problem at this point in my life, I would be confident that I could find relief in psychotherapy
9. People should work out their own problems; getting professional help should be a last resort (R)
10. If I were to experience psychological problems, I could get professional help if I wanted to
11. Important people in my life would think less of me if they were to find out that I was experiencing psychological problems (R)
12. Psychological problems, like many things, tend to work out by themselves (R)
13. It would be relatively easy for me to find the time to see a professional for psychological problems
14. There are experiences in my life I would not discuss with anyone (R)
15. I would want to get professional help if I were worried or upset for a long period of time
16. I would be uncomfortable seeking professional help for psychological problems because people in my social circles might find out about it (R)
17. Having been diagnosed with a mental disorders is a blot on a person's life (R)
18. There is something admirable in the attitude of people who are willing to cope with their conflicts and fears without resorting to professional help (R)
19. If I believed I were having a mental breakdown, my first inclination would be to get professional attention
20. I would feel uneasy going to a professional because of what some people would think (R)
21. People with strong characters can get over psychological problems by themselves and would have little need for professional help (R)
22. I would willingly confide intimate matters to an appropriate person if I thought it might help me or a member of my family
23. Had I received treatment for psychological problems, I would not feel that it ought to be "covered up"
24. I would be embarrassed if my neighbor saw me going into the office of a professional who deals with psychological problems (R)

Note. All items are scored using a 5-point strongly disagree (0) to strongly agree (4) format.

Appendix G

Psychotherapy Descriptions

General Description (included in all conditions, also acts as the control):

As many as 1 in 4 adults experience a diagnosable mental health problem, such as depression, anxiety, or PTSD. Fortunately, research indicates that psychotherapy is an effective form of treatment. In psychotherapy, a trained professional would work with you using research supported treatment techniques that fit your presenting problems as well as your personal values, beliefs, and preferences. This may include an examination of how your past is influencing your current behavior or attempting to identify thought and behavior patterns that contribute to your problems. Sessions are typically held once a week and each one lasts an hour. If you use psychotherapy you may notice some changes after just a few weeks, but lasting effects typically take between 15 and 20 sessions.

Added promotion-focused sentences:

Psychotherapy has been found to be particularly beneficial in helping people overcome the problems that are getting in the way of their living their ideal life. After psychotherapy, people often report an improved self-esteem, greater peace and happiness, stronger relationships with loved ones, and a positive outlook on life.

Added prevention-focused sentences:

Psychotherapy has been found to be particularly beneficial in helping people deal with the problems that they have been living with on a daily basis. After psychotherapy, people often report decreases in their experiences of low self-worth, distress, sadness, relationship conflicts with loved ones, and pessimism.

Added promotion- and prevention-focused sentences:

Psychotherapy has been found to be particularly beneficial in helping people overcome and deal with the problems that they have been living with on a daily basis and that have been getting in the way of their living their ideal life. After psychotherapy, people often report an improved self-esteem, greater peace and happiness, stronger relationships with loved ones, and a positive outlook on life. Further, people often report decreases in their experiences of low self-worth, distress, sadness, relationship conflicts with loved ones, and pessimism.

Appendix H

Demographic Questions

What is your age?:

What is your gender?:

What is your ethnicity/race?:

Education: What is the highest degree or level of school you have completed? *If currently enrolled, highest degree received.*

- No schooling completed
- Nursery school to 8th grade
- Some high school, no diploma
- High school graduate, diploma or the equivalent (for example: GED)
- Some college credit, no degree
- Trade/technical/vocational training
- Associate degree
- Bachelor's degree
- Master's degree
- Professional degree
- Doctorate degree

Marital Status: What is your marital status?

- Single, never married
- Married or domestic partnership
- Widowed
- Divorced
- Separated

Employment Status: Are you currently…?

- Employed for wages
- Self-employed
- Out of work and looking for work
- Out of work but not currently looking for work
- A homemaker
- A student
- Military
- Retired
- Unable to work

What is your household annual income?:

- Less than $25,000
- $25,000 to $34,999

- $35,000 to $49,999
- $50,000 to $74,999
- $75,000 to $99,999
- $100,000 to $149,999
- $150,000 or more

Are you currently seeing a therapist, counselor, or other mental health provider for counseling or psychotherapy?

- Yes
- No

Have you previously seen a therapist, counselor, or other mental health provider for counseling or psychotherapy?

- Yes
- No

Do you have any family members who current are or have previously seen a therapist, counselor, or other mental health provider?

- Yes
- No

Have you ever sought treatment from a professional for any of the following concerns: depression, anxiety, panic attacks, trauma-related experiences, obsessions, compulsions, substance or alcohol abuse, or other related symptoms?

- Yes
- No

Have you ever been mandated by a court or some other authoritative entity to seek treatment involuntarily?

- Yes
- No

Are you currently taking any medication (prescribed by a doctor) for a psychological problem?

- Yes
- No

Have you ever taken medicine (prescribed by a doctor) for a psychological problem?

- Yes
- No

Appendix I

Outcome Questionnaire 45.2 (OQ-45.2)

1. I get along well with others. (R)
2. I tire quickly.
3. I feel no interest in things.
4. I feel stressed at work/school.
5. I blame myself for things.
6. I feel irritated.
7. I feel unhappy in my marriage/significant relationship.
8. I have thoughts of ending my life.
9. I feel weak.
10. I feel fearful.
11. After heavy drinking, I need a drink the next morning to get going. (If you do not drink, mark "never")
12. I find my work/school satisfying. (R)
13. I am a happy person. (R)
14. I work/study too much.
15. I feel worthless.
16. I am concerned about family troubles.
17. I have an unfulfilling sex life.
18. I feel lonely.
19. I have frequent arguments.
20. I feel loved and wanted. (R)
21. I enjoy my spare time. (R)
22. I have difficulty concentrating.
23. I feel hopeless about the future.
24. I like myself. (R)
25. Disturbing thoughts come into my mind that I cannot get rid of.
26. I feel annoyed by people who criticize my drinking (or drug use). (If not applicable, mark "never")
27. I have an upset stomach.
28. I am not working/studying as well as I used to.
29. My heart pounds too much.
30. I have trouble getting along with friends and close acquaintances.
31. I am satisfied with my life. (R)
32. I have trouble at work/school because of drinking or drug use. (If not applicable, mark "never")
33. I feel that something bad is going to happen.
34. I have sore muscles.
35. I feel afraid of open spaces, of driving, or being on buses, subways, and so forth.
36. I feel nervous.
37. I feel my love relationships are full and complete. (R)
38. I feel that I am not doing well at work/school.
39. I have too many disagreements at work/school.

40. I feel something is wrong with my mind.
41. I have trouble falling asleep or staying asleep.
42. I feel blue.
43. I am satisfied with my relationships with others. (R)
44. I feel angry enough at work/school to do something I might regret.
45. I have headaches.

Note. All items are scored using a 5-point never (0) to almost always (4) format. All items marked with (R) are reverse-scored.

Appendix J

Post-Study Honesty/Seriousness Questions

1. Throughout your participation in this study, did you answer all of the questions openly and honestly?

- Yes
- No

2. Did you take your participation in this study seriously, for example reading all prompts, questions, and instructions in their entirety?

- Yes
- No