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Belief in the Efficacy of Psychotherapy (BEP): Psychometric Scale Development and Examination of Theoretical Correlates

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Belief in the Efficacy of Psychotherapy (BEP): Psychometric Scale Development and
Examination of Theoretical Correlates

A Dissertation
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Doctor of Philosophy
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Abstract

This study develops a psychometric scale measuring the extent to which an individual expects psychotherapy to be effective: The Belief in the Efficacy of Psychotherapy (BEP). Based in the research that describes expectations for therapy as *process expectations* or *outcome expectations*, the BEP scale is developed to measure outcome expectations for therapy exclusively (i.e., is psychotherapy helpful?). Current expectancy measures vastly underrepresent *outcome* expectations in particular, and BEP will be the first to focus solely on outcome expectations. Additionally, the proposed BEP scale measures the general cultural belief system (i.e., non-patients) and their beliefs about *psychotherapy* and *therapists* specifically, rather than other forms of mental health services. The present study develops the scale (BEP), tests its psychometric properties, and examines how BEP covaries with personality characteristics such as the "Big Five," Optimism, and Psychological Mindedness (PM), and Treatment Rejection (RXR).

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CHAPTER 1

INTRODUCTION

The purpose of this study is to develop a scale measuring the extent to which an individual expects psychotherapy to be effective: The Belief in the Efficacy of Psychotherapy (BEP). There are three objectives: a) Develop a scale of BEP and test its psychometric properties; b) Establish norms for the BEP among a non-patient population; c) Examine how BEP covaries with personality characteristics in order to determine validity of the proposed scale.

Expectations for Psychotherapy

Social psychologists have been studying expectations and expectancy effects since the late 1940s, concluding that expectations shape our experiences and outcomes in education, organizations, sports and medicine (Asch, 1946; Farina & Ring, 1965; Kelley, 1950; Secord, 1958; Orne, 1965). Counseling and clinical psychologists have applied the broad social psychological concept of expectations specifically to the process of psychotherapy (Frank, 1968, 1973; Goldstein, 1960a, 1962; Goldstein & Shipman, 1961; Orne, 1968; Rosenthal & Frank, 1956). Researchers have defined expectations as cognitive sets that guide behaviors (Beitel et al., 2009). More specifically, Schulte (2008) describes expectancies as "cognitions regarding a probable future event or condition" (p.483).

Types of Expectations

Psychotherapy researchers have elaborated on the construct of expectations for treatment. Generally, these studies focus on expectations about *process* or *outcome* (Glass, Arnkoff, & Shapiro, 2001; Greenberg, Constantino, & Bruce, 2006; Noble, Douglas, & Newman, 2001). Process expectations are the individual's expectations of what will occur during psychotherapy.

These expectations about what occurs in psychotherapy include therapist characteristics, patients' roles, therapists' roles, techniques used, topics covered, and the therapeutic alliance (Arnkoff, Glass, & Shapiro, 2002). In contrast, outcome expectations are the individual's expectations of how much psychotherapy will be helpful (Arnkoff, et al., 2002; Noble, et al., 2001).

Expectations and Help Seeking Behaviors

Reviewing the Epidemiologic Catchment Area (ECA) survey and the National Comorbidity Survey (NCS), Howard and colleagues (1996) report 30% of all adults experience a diagnosable mental condition within a given year. Moreover, most of these adults (56-60%) will meet criteria for multiple psychiatric disorders. Additionally, these reports show that more than 70% of those with a mental disorder receive no treatment, and of those who do, a mere 13% receive treatment from a mental health professional (National Institute of Mental Health [NIMH], 1981).

While many factors contribute to this failure to provide professional mental health care to the bulk of people who need it, Strohmer, Biggs, and McIntyre (1984) surmise that people who need treatment do not seek it in part because of their expectations about what psychotherapy is and the degree to which it works. Similarly, Tata and Leong (1994) conclude that one's attitudes toward seeking psychological help can influence one's help-seeking behaviors. An individual's expectations about psychotherapy (what it is and whether it works) might influence the probability of treatment seeking behavior (Tinsley, Brown, de St. Aubin, & Lucek, 1984), and where that treatment is sought (Snyder, Hill, & Derksen, 1972; Ziemelis, 1974). Perhaps individuals who need therapy but do not seek it expect therapy to be unpleasant (process expectation) or unhelpful (outcome expectation) (Tinsley & Harris, 1976).

The Role Expectations Play in Psychotherapy

As the concept of expectations broadened throughout the field of psychology, researchers began paying a great deal of attention to the importance of patient expectations on therapy (Frank, 1968, 1973; Goldstein, 1960a, 1960b, 1962; Goldstein & Shipman, 1961; Rosenthal & Frank, 1956). Researchers have in general focused on this question: if expectations guide our preferences and behaviors as a general rule (as social psychology suggests), do patient expectations affect the course and outcome of psychotherapy in a similar way? Research addressing this question suggests that patient expectations for psychotherapy *do* impact the course and outcome of treatment. Specifically, in a series of studies in the late 1960's and early 1970s, Greenberg and colleagues examined the impact that pre-session information had on clients. What they found was that the information given to clients prior to therapy did influence how these clients subsequently experienced and benefited from psychotherapy (Greenberg, 1969; Greenberg, Goldstein, & Gable, 1971; Greenberg, Goldstein, & Perry, 1970; Greenberg & Land, 1971).

People arrive in therapy with wide-ranging expectations about how and how much they will be helped (Apfelbaum, 1958; Bordin, 1955; Frank, 1968; Goldstein, 1962; Goldstein, Heller, & Sechrest, 1966; Tinsley & Harris, 1976). These expectations serve as a primary factor determining client behaviors in counseling (Tinsley, Workman, & Kass, 1980), such as level of personal involvement in counseling (Tinsley, Tokar, & Helwig, 1994), willingness to discuss private information (Apfelbaum, 1958), and even staying in treatment long enough to experience relief (e.g., Heilbrun, 1970, 1972; Overall & Aronson, 1963). Nearly half of all psychotherapy patients drop out early (National Institute of Mental Health [NIMH], 1981; Wierzbicki & Pekarik, 1993), and anywhere from 25-62% of people who schedule a first therapy session fail to

appear for their first appointment (Festinger, Lamb, Marlowe, & Kirby, 2002; Livianos-Aldana, Vila-Gomez, Rojo-Moreno, & Luengo-Lopez, 1999; Ritchie, Jenkins, & Cameron, 2000). Garfield (1994) posits that patients may feel dissatisfied if their pre-treatment expectancies are not met, leading them to drop out of treatment early.

Some researchers address this issue by examining the stages of readiness to change (e.g., Norcross, Krebs, & Prochaska, 2011; Prochaska & DiClemente, 1983; Prochaska, DiClemente, & Velicer, 1985; Prochaska, Norcross, & DiClemente, 1995). Beginning in the 1980s, Prochaska, DiClemente and Velicer defined five stages of change in psychotherapy: *Precontemplation* (the patient has no awareness of their own problems and shows no intention of changing in the near future), *Contemplation* (the patient is aware of a problem, is considering addressing this problem, but has not yet committed to change), *Preparation* (the patient intends to take action on resolving their problem and begins making small behavioral changes), *Action* (the patient is actively modifying problem behaviors), and *Maintenance* (the patient is working to prevent relapse and is consolidating gains for a period six or more months). These researchers argue that the amount of progress patients make during therapy is related to their pre-treatment stage of change (Norcross, et al., 2011). Thus, according to Prochaska, Norcross, and DiClemente (1995), it is crucial for the therapist to assess for and accurately match each patient's stage of change. If this match is not properly made, the therapist risks prematurely driving away the patient (1995).

Beginning in the early 1960s, researchers document the impact patient expectations about therapy have on treatment (Arnkoff, et al., 2002; Frank, 1968; Goldstein, 1962; Lennard & Bernstein, 1960; Miller, 2009), ultimately inhibiting or facilitating the process and outcome. The patients' initial expectations about how well they will respond to psychotherapy are pivotal

(Arnkoff, et al., 2002; Dozois & Westra, 2005; Greenberg, et al., 2006). Some researchers attribute 15% of the therapeutic improvement to expectancy effects (Lambert & Barley, 2001). Given the clinical importance of expectations for therapy, some psychologists argue that patient expectations are undervalued in the psychotherapy literature (Arnkoff, et al., 2002; Greenberg, et al., 2006; Weinberger & Eig, 1999).

Lay Beliefs About Mental Health

In the 1980s, research emerged regarding cultural and individual determinants of general health benefits (Furnham, 1988). Initial work focused on medical health (Bishop, 1987; Millstein & Irwin, 1987); however, psychologists began exploring the lay theories of a number of psychological disorders and conditions, including alcoholism (Furnham & Lowick, 1984), depression (Brewin & Furnham, 1986; Rippere, 1981), neuroticism (Furnham, 1984), and schizophrenia (Furnham & Rees, 1988). In a series of questionnaire-based studies, Furnham and colleagues (Furnham & Wardley, 1990; 1991; Furnham, Wardley, & Lillie, 1992) examined lay theories about psychotherapy: what expectations non-patients have about psychotherapy. These include what happens in multiple forms of therapy (process expectations) and the probability that treatment will be helpful (outcome expectations). Overall, the authors found that lay beliefs about psychotherapy are generally positive. Notably, they found that with increasing exposure to, knowledge of, or experience with psychological treatments comes an increase in skepticism regarding potential benefits (1991; 1992). More recently, Furnham (2009) examined what lay people think happens during psychotherapy (i.e., what the process is like) and the probability that therapy will be helpful. Overall, participants were very positive about psychotherapy, believing it to be highly beneficial; however, they believed drug treatments to be more effective than psychotherapy for psychotic and bipolar disorders. The research conducted by Furnham and

colleagues emphasizes the importance of understanding lay theory of mental health treatments. Echoing the literature on patient expectations, researchers argue for the importance of studying non-patient beliefs as they serve as the cultural backdrop which ultimately impacts clients' help-seeking behaviors (Türküm, 2004): expectations about the nature of treatment, and expectations about its efficacy (Furnham, et al., 1992).

Whereas much of the psychotherapy research aims to understand *client* beliefs and expectations (Berzins, 1971; Martin & Sterne, 1975; Norberg, Wetterneck, Sass, & Kanter, 2011; Schulte, 2008; Tinsley, 1982; Tinsley, et al., 1980), the present study examines the beliefs and expectations held by a non-clinical, general population. Given that many potential clients never seek treatment due to negative expectations (Howard, et al., 1996; Snyder, et al., 1972; Tinsley & Harris, 1976; Ziemelis, 1974), it is important that research on beliefs and expectations about psychotherapy assays non-patient beliefs about the nature and helpfulness of psychotherapy. Results might guide how we educate the public about mental health and mental health treatment.

Current Measures of Expectancy

Researchers began to develop self-report measures that capture and describe patterns of expectations for (and beliefs about) mental health treatments. The majority of these scales focus mainly on process expectations (Berzins, 1971; Fischer & Farina, 1995; Fischer & Turner, 1970; Tinsley, 1982; Tinsley, et al., 1980) or at most, include some mix of process and outcome expectations (e.g., Ægisdóttir & Gerstein, 2009; Furnham, 2009; Kushner & Sher, 1989; Norberg, et al., 2011; Türküm, 2004). Where outcome expectations are included, researchers have used between one and three items to examine outcome expectations (Borkovec & Nau, 1972; Constantino, Arnow, Blasey, & Agras, 2005; Devilly & Borkovec, 2000; Joyce,

Ogrodniczuk, Piper, & McCallum, 2003; Meyer et al., 2002; Sotsky et al., 1991). Such limited inclusion of items per a construct is problematic psychometrically due to a lack of specificity and reliability (Marsh, Hau, Balla, & Grayson, 1998). Even the recently published Milwaukee Psychotherapy Expectation Questionnaire (MPEQ; Norberg, et al., 2011), which claims to be a psychometric and conceptual improvement over the previously developed psychotherapy expectation measures, only dedicates 4 of its 13 items to outcome expectations. The remaining 9 items are dedicated to process expectations.

In addition to the underrepresentation of outcome expectations, current treatment expectation measures define "mental health treatment" in quite broad terms. That is, the treatments in question include counseling, psychotherapy, pharmacological treatment, other medical treatments, and career counseling (e.g., Fischer & Farina, 1995; Fischer & Turner, 1970; Furnham, 2009; Tinsley, 1982; Tinsley, et al., 1980). Few of these existing measures aim to examine specifically *psychotherapy* and *psychologists* (e.g., Ægisdóttir & Gerstein, 2009; Norberg, et al., 2011).

Finally, few of the existing measures designed to measure expectations for therapy were created exclusively for a non-clinical sample. The Attitudes Towards Seeking Psychological Help (ASPH; Turkum, 2004) is one scale that was designed to assess the attitudes about psychological help at a broader, cultural level. However, this measure was written specifically for the Turkish culture, and therefore, is not necessarily generalizable to the American culture. Furnham (2009) conducted a series of studies examining the lay belief system of psychotherapy process and outcome; however, the surveys used were questionnaires rather than reliable and valid psychometric measures.

Study Rationale

It is clear that a major gap exists in the area of outcome expectation measures. There are multiple measures of expectations for therapy; however, few include items adequately assessing *outcome* expectations. Where outcome expectations *are* included in these measures, the items are outnumbered by items assessing process expectations (1-4 items at most). None of the measures focus solely on outcome expectations. Given the lack of psychometrically sound measures exclusively devoted to outcome expectations, I seek to develop a psychometrically reliable and valid measure of expectations for the outcome of psychotherapy and norm it in a non-patient population.

The proposed scale differs from its contemporaries in the following ways: 1) Focus on outcome expectations exclusively, 2) Focus on "psychotherapy" and "psychotherapists" specifically, and 3) Focus on the general cultural belief system (i.e., a non-clinical population). The provisional title of this proposed measure is: Belief in the Efficacy of Psychotherapy (BEP).

Development of a New Measure

This measure was initially created in the context of a graduate level seminar in applied psychometrics. The aim of the scale is to measure a general belief system, held by members of a non-clinical population, regarding benefits that may result from psychotherapy.

The scope of the graduate course project was to develop an original psychometric scale and test its psychometric properties. An initial set of 15 items was written to capture and expand upon similar outcome items embedded in existing "beliefs" or "attitudes" towards psychotherapy/mental health treatment scales (Ægisdóttir & Gerstein, 2009; Norberg, et al., 2011; Türküm, 2004). To assay the internal consistency reliability, the original 15 items were

administered to a small sample of 15 graduate students from a social sciences course. Reliability

analyses were conducted in SPSS, a statistical software package for the social sciences (IBM

Corp, 2012). Initial reliability analysis of the original 15 items yielded a coefficient alpha of

$\alpha=.717$ (Table 1 displays the Item-Total Statistics for the original 15-item scale). Examining the

Item-Total Statistics indicated that trimming a few non-optimal items would increase the overall

coefficient alpha of the scale. These items were item numbers 8 and 10, which would increase

the coefficient alpha to .84. In addition to items 8 and 10, any items with a corrected item-total

correlation $< .3$ were deleted. Applying this critera, items 1 and 11 were also removed. In sum,

the initial reliability analyses indicated that removing items 1, 8, 10, and 11 would enhance the

proposed scale, elevating the α to .84 and elimnating any items with poor item-total correlation.

For details regarding the edited version of the BEP scale developed in the context of the

psychometrics course project, please refer to Table 2.

Whereas the preliminary development of this BEP scale shows promise, the scope and

sample size are far too limited to make any clear conclusions about the psychometric properties

of the BEP scale. Thus, the current study expands on the preliminary BEP scale in the following

ways: 1) Development of additional items beyond the original 15, in keeping with the proposed

construct; 2) Administer full BEP scale to a larger sample (at least 10 subjects per item) to

examine internal consistency reliability; 3) Assess for construct validity of the BEP scale by

examining how BEP covaries with cognate measures.

Relevant Correlates of Expectations for Therapy

Demographic and personality characteristics may be associated with one's beliefs or

expectations about psychotherapy (Cepeda-Benito & Short, 1998; Strohmer, et al., 1984;

Türküm, 2000). Overall, it has been found that in non-clinical populations, women express more

positive attitudes toward getting psychological help than men (Ægisdóttir & Gerstein, 2009; Türküm, 2004). Also, individuals who have had prior experience with psychological help or counseling services report more favorable attitudes toward seeking psychological help (Ægisdóttir & Gerstein, 2009; Halgin, Weaver, Edell, & Spencer, 1987). However, some researchers have found that the *more* experience one has with psychotherapy (including knowledge of or experience with psychotherapy), the more skeptical one tends to be regarding the actual effectiveness of psychotherapy as a treatment (Furnham, et al., 1992).

In addition to demographic variables, emotional openness (Komiya, Good, & Sherrod, 2000), low self-concealment (Kelly & Achter, 1995), perceived comfort and benefits of self-disclosure (Vogel & Wester, 2003) and mature psychosocial development (Tinsley & Westcot, 1990) are all positively associated with positive expectations about mental health services in a non-clinical population. Psychological mindedness (Beitel, et al., 2009) is positively associated with positive expectations (specifically process expectations) about mental health services in a clinical population.

Using the Expectations About Counseling, Brief Form (EAC-B; Tinsley, 1982) as a measure of counseling expectations, Hatchett and Han (2006) examined the ways in which patterns of expectations might be related to the Five Factor Model (FFM) of personality in a non-clinical population. Specifically, they found the following relationships: 1) Expectations for counseling to include facilitative conditions were positively associated with extraversion, agreeableness, conscientiousness; 2) Expectations for counselor expertise were negatively associated with openness and agreeableness; 3) Expectations for client involvement in the counseling sessions were positively associated with extraversion, openness, agreeableness, and conscientiousness. Whereas this study does examine expectations for counseling in a non-

clinical sample, these expectations are all *process* expectations, and *counseling* is specified rather than psychotherapy specifically.

CHAPTER 2

STUDY 1: SCALE DEVELOPMENT AND RELIABILITY

Method

Study 1 develops, analyzes, and refines items in the BEP scale for internal consistency reliability. Such reliability is a necessary, though not a sufficient, requirement for establishing the validity of the BEP scale (Nunnally, 1978).

Participants

The desired subject-to-item ratio in psychometric research is 10:1 (Kline, 2010). Thus, with 17 items on the original BEP scale, 170 or more participants were necessary. Participants for Study 1 include 216 undergraduate students in introductory psychology courses at a large university in the southeast region of the United States. No demographic information was requested, and each subject's responses were entirely anonymous and confidential. Completed informed consent signature pages are stored separately from all responses, each in locked filing cabinets. By signing the informed consent form, subjects confirmed that they were at least 18 years old and agreed to the study procedure. Of the total 216 subjects, three did not complete the BEP scale in its entirety. Each of these three subjects skipped one item (item 3, item 4, and item 9). List-wise deletion of these three incomplete response protocols resulted in a total N=213 for Study 1.

Procedure

Participants completed the BEP scale (described in more detail below) in paper and pencil form. They completed these forms in-person. There was no use of an internet survey service. Data collection occurred on two separate occasions in classroom settings during class time with the permission of the course instructor. Subjects first completed informed consent

forms. The 17-item BEP scale was then distributed, completed, and collected. Only the

principal investigator and one research assistant had access to the completed BEP scales and

informed consent signature pages. Participation in Study 1 took approximately 5 minutes. Two

points of extra credit were granted to each subject for participation.

Measure

      Belief in the Efficacy of Psychotherapy (BEP). The initial BEP scale includes 17

items—15 items written for the purposes of a graduate level seminar in applied psychometrics,

and two additional items written for the purposes of the present study. The proposed construct

aims to measure the belief system of a non-clinical population regarding potential beneficial

outcomes of psychotherapy. Items are scored on a 5-point Likert scale (1=strongly disagree,

2=disagree, 3=neutral/don't know, 4=agree, 5=strongly agree).   See Appendix B for a full list of

the original 17 items.

Hypotheses

      Hypothesis 1. The aim of Study 1 is to analyze and refine the internal consistency

reliability of the BEP scale. I expect that the BEP scale will be developed into an internally

consistent and acceptably reliable measure. This requires the analysis and exploration of item-

total statistics to inform potential removal of "bad" items. In order to examine the internal

consistency of the BEP scale, reliability analyses will be conducted in SPSS, a statistical

software package for the social sciences. The following criteria will be applied: 1) The

coefficient alpha (Cronbach's alpha; α) should be at an acceptable level. Agreed-upon alpha

levels are as follows: excellent ($\alpha \geq .9$), good ($.9 > \alpha \geq. 8$), acceptable ($.8 > \alpha \geq .7$), questionable

($.7 > \alpha \geq .6$), poor ($.6 > \alpha \geq .5$), and unacceptable ($\alpha < .5$) (George & Mallery, 2008; Kline,

1999). Thus, the coefficient alpha of the BEP scale should be at least 0.7. 2) The average inter-

item correlation should be at least 0.3 (Kline, 1999). Applying these reliability criteria to the BEP scale will determine which items will remain and which ones warrant deletion. I expect that following these guidelines as applied to the original 17 BEP items, an internally consistent and reliable BEP scale will emerge. If deletion of "bad" items per the above stated guidelines still does not yield $\alpha \geq .70$ or average inter-item correlation of at least .3, I will conclude that BEP is not an internally consistent scale.

Results

Hypothesis 1 states that in order for the BEP scale to be considered acceptably reliable, two conditions must be satisfied: 1) a coefficient alpha (Cronbach's alpha; α) $> .7$, and 2) an average inter-item correlation should be at least 0.3 (Kline, 1999). Eight of the original 17 BEP items were reverse scored. Thus, prior to data analysis, these items were reverse transformed in SPSS.

Internal consistency reliability analyses were then conducted in SPSS on the original 17 BEP items, yielding $\alpha = .836$. This alpha level falls in the "good" range (George & Mallery, 2008; Kline, 1999), and meets the first criterion of hypothesis 1. Next, the item-total correlations of each item were examined. Per the second criterion stated in hypothesis 1, items with inter-item correlations $< .3$ were removed. Applying this rule, items 2, 5, 8, and 10 were removed from the original 17 BEP items. For complete details regarding the initial reliability analysis of the 17 BEP items, refer to Table 3. Following the removal of these "bad" items, the new BEP scale includes 13 items with $\alpha = .88$ and all inter-item correlations $>.3$. Thus, based on the criteria set in hypothesis 1, the new BEP scale is considered acceptably reliable. For details regarding the revised 13-item BEP scale, please refer to Table 4.

Additionally, exploratory factor analysis using Principal Axis Factoring reveals that the 13 BEP items do load onto one single factor (Eigenvalue = 5.4). For complete details, please see Table 7.

Brief Discussion

The aim of Study 1 was to develop, analyze, and refine items in the BEP scale for internal consistency reliability. Results from Study 1 reveal an internally consistent and reliable 13-item BEP scale, with a single factor. Such reliability is a necessary, though not a sufficient, requirement for establishing the validity of the BEP scale (Nunnally, 1978). Whereas the results from Study 1 demonstrate high internal consistency (i.e., the items are all measuring a similar construct), a second study is necessary to examine the validity of the BEP scale.

CHAPTER 3

STUDY 2: VALIDITY

Method

Having developed a reliable and internally consistent BEP scale in Study 1, the aim of Study 2 is to assess the convergent, incremental, and construct validity of the BEP scale.

Participants

Participants for Study 2 include an independent sample (N=175) of undergraduate students at the same southeastern university. No demographic information was requested, and each subject's responses were entirely anonymous and confidential.

G*power version 3.1 (Faul, Erdfelder, Lang, & Buchner, 2007) was used to calculate the necessary sample size for the present study. Using multiple regression analyses with a significance level of .05 and a power $(1 - \beta) = .95$, the necessary sample size for finding small to medium effects were specified. According to Cohen, a small effect size for an F test is equal to .10, and a medium effect is equal to .15 (Cohen, 1988). These calculations indicate that samples ranging from 119 (effect size = 0.15) to 172 (effect size = 0.10) would be required. Additionally, multiple tests will be conducted on this pool of data for the purposes of the present study. Thus, a sample size of 175 was chosen, as this will insure that the sample size will be large enough to realize enough power given multiple analyses. This sample size will allow for the detection of small-to-medium effects and will be feasible for the purposes of the present study.

Procedure

175 participants completed the finalized version of the BEP scale (13 items; developed and refined in Study 1), a small set of criterion validity items, and all additional measures described below. Participants completed all measures in paper and pencil form. No internet-

based survey system was utilized for any data collection. In-person administration of the

measures took place on three separate occasions in classroom settings during class time with the

permission of the course instructor. Subjects first completed informed consent forms. Following

the completion of informed consent procedures, participants completed the packet of measures

(described below) in one session, which lasted approximately 25-30 minutes. Two points of

extra credit were granted to each subject for participation.

Measures

Belief in the Efficacy of Psychotherapy (BEP). Following reliability analyses

conducted in Study 1 and the resulting revisions, the BEP scale has been refined into a reliable

and internally consistent 13-item measure. That revised and reliable version of the BEP scale is

administered in Study 2 to examine the validity of the BEP scale. Subjects respond to each item

on a 5-point Likert scale (1=strongly disagree; =disagree; 3=neutral/don't know; 4=agree;

5=strongly agree). For a complete list of the finalized BEP scale items, please see Appendix B.

Criterion-related validity items. Criterion variables used in the present study are as

follows: 1) *Have you ever been in psychotherapy yourself?* (Prior TX), and 2) *If, at some point*

in the future, you experienced emotional or personal distress, how likely would you be to enter

psychotherapy? (Intent TX). It is important to consider one's personal experience with

psychotherapy, as research suggests that one's level of experience with or knowledge of

psychotherapy will impact one's beliefs about psychotherapy (Furnham & Wardley, 1990; 1991;

Furnham, et al., 1992). Additionally, *intent* to use or recommend psychotherapy anchors one's

general belief system to meaningful behaviors, (Fishbein & Ajzen, 1975; Nunnally, 1978). This

second criterion-related item is rated on a Likert scale from 1-5 (1=very unlikely to enter

psychotherapy to 5=very likely to enter psychotherapy).

Milwaukee psychotherapy expectations questionnaire (MPEQ). Developed by Norberg, Wetterneck, Sass and Kanter (2011), the MPEQ aims to measure clients' expectations regarding various components and effects of psychotherapy. The authors suggest that such a measure may help predict individuals who are at risk for attrition, and they encourage its use by mental health providers for its clinical utility. This scale was developed and normed on three non-clinical samples of undergraduate students, and then given to a fourth sample of 71 clients at a university training clinic. The non-clinical samples were asked to *imagine* they were experiencing psychological distress and considering going to see a therapist prior to responding. Therefore, the items are written from the point of view of someone who is about to begin therapy. For the purposes of the present study, the instructions for completing the MPEQ are similar to the instructions used by the MPEQ authors when administering this scale to non-clinical samples (i.e., participants will be asked to *imagine* they are experiencing psychological distress and considering going to see a therapist). The MPEQ includes 13 items, loading onto two primary factors: Process (9 items) and Outcome (4 items). Both factors have shown high internal consistency estimates ($\alpha > .85$). The average corrected item-total correlation was 0.64 (SD = 0.10) and 0.77 (SD = 0.06) for Process and Outcome factors, respectively. Test-retest reliability has also been found to be good; correlation coefficients between Time 1 and Time 2 for the MPEQ Process factor was $r = 0.83$, $p<0.001$, and $r = .76$, $p<0.001$ for the Outcome factor (2011). See Appendix B for full list of items.

An obvious limitation to the inclusion of this measure is its intention for use in a clinical population. Although it has been psychometrically studied and normed on non-clinical samples as well, the tone and aim of this scale is slightly different from that of the proposed BEP scale. However, it was chosen for this study because, of its contemporaries, it includes the most

Outcome Expectations items (4 out of 13). Despite the advantages of the inclusion of this measure in the present study, it will also be necessary to address its noted limitations. For the purposes of this study, an additional measure will also be included, which does not possess the same limitations as the MPEQ (the BAPS, described below). Including both measures will account for the limitations of each in a more comprehensive manner.

Beliefs about psychological services scale (BAPS). Developed by Ægisdóttir and Gerstein (2009), this measure was designed to measure attitudes towards seeking psychological help from psychologists specifically. Items are based on common positive and negative attitudes toward psychologists and psychological services. The BAPS includes 18 items, comprising three subscales: Intent (one's willingness to seek psychological services), Stigma Tolerance (labeling, stigma, and negative beliefs about seeking help), and Expertness (the unique characteristics of professional therapists). Internal consistency reliability statistics, measured by Cronbach's alpha, were 0.82, 0.78, and 0.72 for Intent, Stigma Tolerance, and Expertness, respectively. Two-week test-retest reliability for the BAPS total score was 0.87 and for subscale scores, 0.88, 0.79, and 0.75 for Intent, Stigma Tolerance, and Expertness, respectively. See Appendix B for a full list of items.

The BAPS was intended for, and normed on, a non-clinical population, which lends itself to a closer fit with the population of interest in the present study. However, despite this advantage, including the BAPS in the present study also presents limitations. Specifically, of the 18 items in this measure, only two of them are written to measure Outcome Expectations, meaning that the content of the scale is conceptually different from the proposed BEP scale. Whereas this measure is similar to the proposed BEP scale in population of interest *and* focus on psychotherapy and psychotherapists, it falls short by underrepresenting Outcome Expectation

items. Because both the MPEQ and BAPS present unique advantages and limitations with regards to the present study, it is necessary to include and examine both measures to insure the most stringent test of validity.

"Big Five" personality traits. In developing a nomological network for BEP, it is important to assess its relationship to the most commonly used and widely validated measure of normal personality—the Big Five personality traits (DeRaad, 2000; Digman, 1990; Digman, 1997; Wiggins & Trapnell, 1997). Given that the aim of the proposed study is to understand the psychology of a general population, it is helpful to include a widely accepted measure of normal personality characteristics. The "Big Five" includes the following five personality traits: Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness. The present study utilizes a measure of the "Big Five" that has been adapted for use with college students (Transition to College Assessment, TTC; Lousbury & Gibson, 2008). The full TTC inventory includes 118 items; however, items related to the "Big Five" represent only 46 of the total 118 items on the TTC. Thus, the 46 "Big Five" items are administered. Due to redistribution restrictions requested by the author, sample items are presented here instead of a comprehensive list of items. See Appendix B for sample items.

Optimism. Also measured by a subset of items on the TTC, the narrow personality trait called optimism refers to being hopeful and upbeat about the future. High scorers tend to hold more positive expectations about possibilities across a range of situations. Low scorers tend to be pessimistic, skeptical, and inclined toward negative expectations (Lounsbury & Gibson, 2008). Optimism may account for holding positive beliefs in general, and might logically be related to holding positive beliefs about the efficacy of psychotherapy. Six items of the total 118 items on the TTC measure Optimism; therefore, the 6 Optimism items are administered. Due to

redistribution restrictions requested by the author, sample items will be presented instead of a comprehensive list of items. See Appendix B for sample items.

Psychological mindedness (PM). One of the most widely accepted current definitions of PM was put forth by Conte, Ratto, and Karasu (1996) with the creation of a psychometrically sound scale designed to measure one's level of psychological mindedness. The authors define PM as "an attribute of an individual that presupposes a degree of access to one's feelings, a willingness to try to understand oneself and others, a belief in the benefits of discussing one's problems, an interest in the meaning and motivation of one's own and others' thoughts, feelings, behavior, and a capacity for change" (p. 258). For the purposes of this proposed study, the scale developed by Conte and colleagues (1996) is utilized to assess subjects' PM. This is a 45-item scale, which serves as a shortened version of Lotterman's 65-item scale of suitability for psychodynamic psychotherapy (Lotterman, 1979). The 45 items are self-report in format, and scoring is on a 4-point scale ranging from "strongly agree" to "strongly disagree." 21 of the 45 items load negatively for PM (i.e., they reflect low PM) and are reverse scored. Good internal consistency has been reported for this scale, yielding a coefficient alpha (α) of +0.87 when administered to a sample of 256 clinical subjects (Conte, et al., 1996). This PM scale consists of 5 factors: Willingness to Try to Understand Oneself and Others, Openness to New Ideas and Capacity for Change, Access to One's Feelings, Belief in the Benefits of Discussing One's Problems, and Interest in Meaning and Motivation of Own and Others' Behavior (1996). For a full list of all 45 items, see Appendix B.

Treatment rejection scale (RXR). As a subset of the literature on expectations for treatment focuses on readiness to change (e.g., Norcross 1995, 2011), the Personality Assessment Inventory (PAI) Treatment Rejection (RXR) subscale is included in this validation

study. Developed by Morey (1991) in the larger context of the PAI, RXR measures attributes

and attitudes related to personal, psychological, or emotional changes. This 8-item scale taps the

relative willingness to participate in treatment and the disposition to accept responsibility for

problems in one's life. The items are self-report in format, and scoring is on a 4-point scale

(F=False, not at all true; ST = slightly true; MT = mostly true; VT = very true). The scaling of

RXR is such that elevations suggest little motivation for/acceptance of treatment, and low scores

represent high motivation for treatment and recognition of the need for personal change. This

scale has been normed on a non-clinical sample of community-dwelling adults. Very high

scorers on RXR reflect a person who admits to few difficulties and has no desire to change his or

her status quo. These individuals are very unlikely to seek treatment on their own, will likely be

resistant if they do begin therapy, and will likely dispute the value of therapy. For a full list of

all 8 items, see Appendix B.

Hypotheses

       Hypothesis 1. In order to determine whether the BEP scale is, in fact, measuring the

construct that it has been developed to measure, I will test its convergent validity with two prior

scales. As described above, both the MPEQ and BAPS are conceptually similar to the BEP, yet

each has its own limitations with regards to the present study. In order to conduct the most

stringent convergent validity test for BEP, I will examine its convergent validity with both of

these scales. I expect that the proposed BEP scale will demonstrate adequate convergent validity

with the MPEQ and BAPS. To test this, I will conduct two bivariate correlational analyses; one

between the total scores on the BEP and MPEQ and another between total scores on BEP and

BAPS. For each analysis, a correlation greater than 0.4 and statistically significant at an alpha

value of 0.05 will indicate convergent validity (Kline, 1999). However, given that the aim of this

study is to develop a new and *unique* measure, a correlation that is *too high* (>0.8) would indicate redundancy, which is not desired (Kline, 1999). Therefore, the criteria used to determine whether the BEP scale demonstrates adequate convergent validity with the MPEQ and BAPS will be a correlation between 0.4 and 0.8 and statistically significant with an alpha value of 0.05. If the correlation between BEP and MPEQ is not within the .4-.8 range (significant at 0.05 level), I will conclude that BEP does not demonstrate convergent validity with MPEQ. If the correlation between BEP and BAPS is not within the .4-.8 range (significant at 0.05 level), I will conclude that BEP does not demonstrate convergent validity with BAPS.

Hypothesis 2. As with the development of any new scale, it is important to assess whether or not it demonstrates incremental validity with respect to cognate measures. Again, given the unique advantages and limitations with both the MPEQ and BAPS, I will examine incremental validity with respect to both measures in order to insure the most comprehensive and stringent test of validity for my proposed measure. I expect that the BEP scale will demonstrate significant incremental validity—that is, I expect BEP to predict significantly more of the variance in the criterion validity item than does the MPEQ, the BAPS, and the combined effects of both the MPEQ and BAPS. To test this, I will examine the ways in which BEP, MPEQ, and BAPS each relate to the item of crierion validity ("Intent TX"; described above). I will conduct three incremendal validity analyses, each of which will entail a hierarchical multiple regression analysis in two steps each.

The first incremental validity analysis will examine the incremental validity of BEP and the MPEQ. For the first step of the regression, I will regress Intent TX (Dependent Variable) onto the total score of the MPEQ (Independent Variable) to asses the R^2, or extent to which the MPEQ accounts for variability in the criterion variable Intent TX. For the second step, I will

regress Intent TX (DV) onto both the MPEQ and the BEP scale to determine the change in R^2. If the change in R^2 in the second model is significantly larger than the R^2 in the first model, I would conclude that the BEP scale demonstrates adequate incremental validity with respect to the MPEQ. If the change in R^2 is not significant (comparing R^2 in the second equation to R^2 in the first equation), I will conclude that BEP does not demonstrate adequate incremental validity with respect to the MPEQ.

The second incremental validity analysis will examine the incremental validity of BEP and the BAPS. For the first step of the regression, I will regress Intent TX (DV) onto the total score of the BAPS (IV) to assess the R^2, or extent to which the BAPS accounts for variability in the criterion variable Intent TX. For the second step, I will regress Intent TX (DV) onto both the BAPS and the BEP scale to determine the change in R^2. If the change in R^2 in the second model is significantly larger than the R^2 in the first model, I would conclude that the BEP scale demonstrates adequate incremental validity with respect to the BAPS. If the change in R^2 is not significant (comparing R^2 in the second equation to R^2 in the first equation), I will conclude that BEP does not demonstrate adequate incremental validity with respect to the BAPS.

The third incremental validity analysis will examine the incremental validity of BEP and *both* MPEQ and BAPS. For the first step of the regression, I will regress Intent TX (DV) onto the total scores of both the BAPS and the MPEQ (IVs) to assess R^2, or extent to which BAPS and MPEQ account for variability in the criterion variable Intent TX. For the second ste[, I will regress Intent TX (DV) onto the MPEQ, BAPS, and BEP scale to determine R^2. If the change in R^2 in the second model is significantly larger than the R^2 in the first model, I would conclude that the BEP scale demonstrates adequate incremental validity with respect to both the MPEQ and BAPS. If the change in R^2 is not significant (comparing R^2 in the second equation to R^2 in the

first equation), I will conclude that BEP does not demonstrate adequate incremental validity with respect to both the MPEQ and BAPS.

        Hypothesis 3. I expect that the BEP scale will be positively associated with the Big Five factor of Openness to Experience. That is, subjects who score high on BEP will also score high in Openness (and subjects who score low on BEP will score low on Openness). Costa and McCrae (1992) describe individuals who are high in Openness to Experience as imaginative, sensitive to the arts, intellectually curious, cognitively and behaviorally flexible, and non-judgmental. Additionally, individuals high in Openness to Experience tend to possess a rich and complex emotional life (1992). Following this definition, it would make sense for an individual high on Openness to Experience to at least be *open* to the possibility that psychotherapy may be an effective treatment strategy. Tinsley and colleagues (1990) discovered a positive relationship between psychosocial development/maturity in college students and positive expectations for counseling. Building on this idea, there has been research to suggest that emotional maturity is positively related to Openness to Experience (Kang & Shaver, 2004). Tying the work of Tinsley and colleagues (1990) together with that of Kang and Shaver (2004), it is plausible that Openness to Experience will be positively associated with BEP. In fact, Hatchett and Han (2006) found that positive expectations for counseling (as measured by the EAC-B) were positively related to Openness to Experience. Based on the conceptual definition noted above, I expect that BEP will be positively associated with the Big Five factor of Openness to Experience. Given the literature reviewed above which notes that one's experience with or knowledge of psychotherapy can impact one's expectations or beliefs about psychotherapy, I will examine this relationship between BEP and Openness to Experience while controlling for previous experience with psychotherapy. I will test this by conducting a partial correlation analysis in SPSS, which is

essentially looking at the extent to which two variables are associated with one another (BEP and Openness to Experience), while holding constant the effects of a third variable (in this case, previous experience with psychotherapy). A statistically significant (alpha value 0.05) correlation (*r*) in a positive direction will indicate a positive relationship between BEP and Openness to Experience. If the strength of the correlation is not significant with an alpha value of 0.05, I will conclude that BEP is not correlated with Openness to Experience.

Hypothesis 4. I expect that the BEP scale will be positively associated with the Big Five factor of Extraversion. That is, subjects who score high on BEP will also score high in Extraversion (and subjects who score low on BEP will score low on Extraversion). Costa and McCrae (1992) describe the Big Five factor of Extraversion as encompassing a high degree of sociability, activity, and a tendency to experience positive emotions. This definition describes individuals who are high in Extraversion as sociable, active, and out-going, and these traits are arguably related to one's tendency to believe in or engage in a "talking cure" such as psychotherapy. In fact, Hatchett and Han (2006) did discover a positive relationship between the Big Five factor of Extraversion and positive expectations for counseling. Whereas the BEP scale focuses on psychotherapy (rather than counseling per se), the relationship found by Hatchett and Han (2006) suggest that Extraversion will be positively associated with BEP. I will examine this relationship between BEP and Extraversion while controlling for previous experience with psychotherapy. I will test this by conducting a partial correlation analysis in SPSS, which is essentially looking at the extent to which two variables are associated with one another (BEP and Extraversion), while holding constant the effects of a third variable (in this case, previous experience with psychotherapy). A statistically significant (alpha value 0.05) correlation (*r*) in a positive direction will indicate a positive relationship between BEP and Extraversion. If the

strength of the correlation is not significant with an alpha value of 0.05, I will conclude that BEP is not correlated with Extraversion.

Hypothesis 5. I expect that BEP scale will be positively associated with general Optimism. That is, subjects who score high on BEP will also score high in Optimism (and subjects who score low on BEP will score low on Optimism). Scheier, Carver and Bridges (1994) define optimism as the quality of having positive expectations for the future. Similarly, the operational definition of Optimism utilized by the TTC measure used in the present study describes optimism as a tendency to be upbeat and hopeful for the future (Lounsbury & Gibson, 2008). In a 2002 study, Goldfarb examined the relationship between Hopelessness (The Hopelessness Scale; Beck, Weissman, Lester, & Trexler, 1974) and positive expectations for counseling. Results of this study revealed that one's positive expectations for counseling were inversely related to one's levels of Hopelessness (2002). Given the fact that Hopelessness can be considered an *opposite* definition of Optimism, I expect Optimism to be positively related to BEP. I will examine this relationship between BEP and Optimism while controlling for previous experience with psychotherapy. I will test this by conducting a partial correlation analysis in SPSS, which is essentially looking at the extent to which two variables are associated with one another (BEP and Optimism), while holding constant the effects of a third variable (in this case, previous experience with psychotherapy). A statistically significant (alpha value 0.05) correlation (*r*) in a positive direction will indicate a positive relationship between BEP and Optimism. If the strength of the correlation is not significant with an alpha value of 0.05, I will conclude that BEP is not correlated with Optimism.

Hypothesis 6. I expect that the BEP scale will be positively associated with psychological mindedness (PM). Drawing from a conceptual model of PM, individuals with

high levels of psychological mindedness will be motivated and capable of understanding psychological conflicts as well as working to alleviate them in psychotherapy (Beitel, Blauvelt, Barry, & Cecero, 2006; McCallum & Piper, 1990). It stands to reason that someone who scores high on PM will also score high on BEP. In fact, Beitel (2009) examined expectations for counseling as they relate to PM and found that PM is positively associated with one's expectations that counseling will facilitate self-understanding, that the counseling relationship will be helpful, and that counseling will result in self-improvement. However, this study found no relationship between PM and *process*-related expectations. Therefore, given the positive relationship between PM and positive outcome expectations for counseling (2009), I expect that PM will be positively related to BEP. I will examine this relationship between BEP and PM while controlling for previous experience with psychotherapy. I will test this by conducting a partial correlation analysis in SPSS, which is essentially looking at the extent to which two variables are associated with one another (BEP and PM), while holding constant the effects of a third variable (in this case, previous experience with psychotherapy). A statistically significant (alpha value 0.05) correlation (*r*) in a positive direction will indicate a positive relationship between BEP and PM. If the strength of the correlation is not significant with an alpha value of 0.05, I will conclude that BEP is not correlated with Psychological Mindedness.

Results

Preliminary Analyses

Prior to conducting the proposed analyses, it is important to conduct some preliminary

analyses in order to gain a thorough understanding of the data set.

Reverse coding. 46 total items were reverse-worded items. Thus, it was necessary to

reverse-code responses on these items so that all response totals share the same directionality.

This was completed prior to addressing missing data.

Missing data. 175 subjects completed packets of 7 measures and 2 questions of

criterion-related validity, totaling 151 items each. Of the total data collected, 11 item responses

(.042% of the data) were missing. Due to the low percentage of missing data, mean substitution

was utilized to replace these missing item responses.

BEP descriptive statistics. The BEP scale utilized in Study 2 includes 13 items, with a

possible range of responses from 13 (minimum possible score) to 65 (maximum possible score).

Results from this study demonstrate an actual range of 25-65 with a mean of 48.67 and standard

deviation (SD) of 7.23. Please see Table 5 for information regarding the descriptive statistics of

the BEP scale.

Exploratory factor analysis. Following factor analysis results from Study 1, the same

exploratory factor analysis procedure using Principal Axis Factoring was conducted with the

sample from Study 2. Results of the factor analysis converge with initial results in Study 1,

indicating that the BEP items load onto a single factor (Eigenvalue = 6.1). For complete details,

refer to Table 7.

BEP reliability. Additionally, reliability statistics were conducted again on this

independent sample in order to assess whether scale retained its reliability in Study 2. Reliability

analyses reveal an improvement in Cronbach's alpha from Study 1 (α = .90), and inter-item total correlations ranging from .41-.70. Based on this analysis, the BEP scale has retained its reliability from Study 1 to Study 2. For details regarding the reliability statistics of the 13-item BEP scale in Study 2, please refer to Table 6.

Prior experience in psychotherapy. One of the criterion items included in the present study asked about participants' previous experience in psychotherapy (Prior TX). Of the total N=175, 30 subjects (17%) endorsed having engaged in psychotherapy, and 145 subjects (83%) did not. Due to the small percentage of individuals with prior experience in therapy and the limited nature of this variable, correlational analyses were not used to examine the relationship between Prior TX and BEP. Rather, an independent samples t-test was conducted with Prior TX specified as the grouping variable. This independent sample t-test showed that the two groups (Prior TX: Yes and Prior TX: No) differed on BEP, t (173) = 2.76, p < .01, such that individuals with prior therapy experience scored higher than individuals without prior therapy experience.

Intention to seek psychotherapy. The other criterion related validity item included in the present study asked about participants' intent to seek psychotherapy in the event that they ever experienced emotional or personal distress (Intent TX). This variable was rated on a 5-point Likert scale (1=very unlikely to enter psychotherapy to 5=very likely to enter psychotherapy). The inclusion of this variable was based on the theory that *intent* to use psychotherapy anchors one's general belief system to meaningful behaviors (Fishbein & Ajzen, 1975; Nunnally, 1978). In order to test the relationship between Intent TX and BEP, a preliminary correlational analysis was conducted. Results from this analysis show that there is a positive relationship between scores on BEP and Intent TX (r = .46, p < .001). Moreover, this relationship remains significant even when controlling for the effects of Prior TX (r = .42, p < .001).

Analyses of A Priori Hypotheses

  Hypothesis 1: convergent validity. Hypothesis 1 states that the BEP scale will be said to demonstrate convergent validity with prior measures if the correlations are between .4-.8 with an alpha value of 0.05. I expected that BEP would demonstrate such convergent validity. A bivariate correlation was conducted between BEP and BAPS. Results from this analysis show a statistically significant positive correlation between BEP and BAPS ($r = .72$, $p < .001$), which falls within the .4-.8 range. Moreover, this relationship remains significant when controlling for the effects of Prior TX ($r = .71$, $p < .001$). Thus, BEP demonstrates convergent validity with BAPS.

  Additionally, convergent validity between BEP and the MPEQ was examined in the same manner. Results from this correlation analysis indicate a statistically significant positive relationship between BEP and MPEQ ($r = .52$, $p < .001$), which falls within the .4-.8 range. This relationship also remains significant when holding constant the effects of Prior TX ($r = .51$, $p < .001$). Thus, BEP also demonstrates convergent validity with MPEQ and hypothesis 1 is supported.

  Hypothesis 2: incremental validity. Hypothesis 2 states that the BEP scale will be said to demonstrate incremental validity if BEP predicts significantly more of the variance in the criterion validity item (Intent TX) than does the BAPS, MPEQ, and the combined effects of both the BAPS and MPEQ. I expected that BEP would demonstrate such incremental validity. To examine the unique contribution of BEP in the explanation of intent to seek treatment (Intent TX), a hierarchical multiple regression analysis was performed. Variables that explain intent to seek treatment were entered in two steps, described per analysis below. A total of three incremental validity analyses were performed.

The first incremental validity analysis examined the incremental validity of BEP with respect to MPEQ. For the first step of the regression, Intent TX (Dependent Variable) was regressed onto the total score of the MPEQ (Independent Variable) to assess the R^2, or extent to which the MPEQ accounts for variability in the criterion variable Intent TX. For the second block of the regression, Intent TX (DV) was regressed onto both the MPEQ and BEP (IVs) to determine the change in R^2 from the first model to the second. The results of step 1 indicated that the variance accounted for (R^2) with the first independent variable (MPEQ) equaled .086 (adjusted $R^2 = .081$), which was significantly different from zero ($F_{(1, 173)} = 16.23$, p <. 001). Thus, MPEQ alone significantly predicts intent to seek treatment. In step 2, the BEP scale was entered into the regression equation. The change in variance accounted for (ΔR^2) was equal to .13, which was significantly different from zero ($F_{(1, 172)} = 27.38$, p <. 001). Thus, the BEP scale accounts for variance in intent to seek treatment above and beyond that of MPEQ. For complete details regarding this analysis, please see Table 8a.

The second incremental validity analysis examined the incremental validity of BEP with respect to BAPS. For the first step of the regression, Intent TX (DV) was regressed onto the total score of the BAPS (IV) to assess the R^2, or extent to which the MPEQ accounts for variability in the criterion variable Intent TX. For the second step of the regression, Intent TX (DV) was regressed onto both the MPEQ and BEP (IVs) to determine the change in R^2 from the first model to the second. The results of step 1 indicated that the variance accounted for (R^2) with the first independent variable (BAPS) equaled .362 (adjusted $R^2 = .358$), which was significantly different from zero ($F_{(1, 173)} = 98.1$, p <. 001). Thus, BAPS alone significantly predicts intent to seek treatment. In step 2, the BEP scale was entered into the regression equation. The change in

variance accounted for (ΔR^2) was equal to .001, which was not significantly different from zero ($F_{(1, 172)}$ = .224, p = .64). Thus, the BEP scale does not account for variance in intent to seek treatment above and beyond that of BAPS. For complete details regarding this analysis, please see Table 8b.

The third incremental validity analysis examined the incremental validity of BEP with respect to the combined effects of the MPEQ and BAPS. For the first step of the regression, Intent TX (DV) was regressed onto the BAPS and MPEQ (IVs) to assess the R^2, or extent to which the combined effects of BAPS and MPEQ account for variability in the criterion variable Intent TX. For the second step of the regression, Intent TX (DV) was regressed onto the BAPS, MPEQ and BEP (IVs) to determine the change in R^2 from the first model to the second. The results of step 1 indicated that the variance accounted for (R^2) with the first set of independent variables (BAPS and MPEQ) equaled .364 (adjusted R^2 = .357), which was significantly different from zero ($F_{(1, 172)}$ = 49.31, p <. 001). Thus, the combined effects of the BAPS and MPEQ significantly predict intent to seek treatment. In step 2, the BEP scale was entered into the regression equation. The change in variance accounted for (ΔR^2) was equal to .002, which was not significantly different from zero ($F_{(1, 171)}$ = .43, p = .52). Thus, the BEP scale does not account for variance in intent to seek treatment above and beyond that of the combined effects of the BAPS and MPEQ. For complete details regarding this analysis, please see Table 8c.

Hypothesis 2 was only partially supported, as BEP only demonstrates incremental validity with respect to the MPEQ scale, but not with respect to the BAPS scale or with respect to the combined effects of MPEQ and BAPS.

Hypothesis 3. Hypothesis 3 states that BEP will be positively associated with the Big Five factor of Openness to Experience (as indicated by $p < .05$ and positive r). To test this relationship, a partial correlation analysis was conducted to examine the extent to which BEP and Openness are related while holding constant the effects of Prior TX. Results from this analysis show that BEP is not associated with Openness to Experience ($N=175$, $r = .07$, $p = .39$). Thus, Hypothesis 3 was not supported. Additionally, in order to thoroughly examine the relationship between BEP and Openness to Experience, an exploratory bivariate correlation was conducted between the two variables, not controlling for the effects of Prior TX. Results from this analysis also show no significant relationship between BEP and Openness to Experience ($N=175$, $r = .1$, $p = .21$).

Hypothesis 4. Hypothesis 4 states that BEP will be positively associated with the Big Five factor of Extraversion (as indicated by $p < .05$ and positive r). To test this relationship, a partial correlation analysis was conducted to examine the extent to which BEP and Extraversion are realated while holding constant the effects of Prior TX. Results from this analysis show a statistically significant positive relationship between BEP and Extraversion ($N=175$, $r = .16$, $p < .05$). Thus, Hypothesis 4 was supported. Additionally, in order to thoroughly examine the relationship between BEP and Extraversion, an exploratory bivariate correlation was conducted between the two variables, not controlling for the effects of Prior TX. Results from this analysis also show a significant relationship between BEP and Extraversion ($N=175$, $r = .16$, $p < .05$).

Hypothesis 5. Hypothesis 5 states that BEP will be positively associated with a measure of general Optimism (as indicated by $p < .05$ and positive r). To test this relationship, a partial correlation analysis was conducted to examine the extent to which BEP and Optimism are related while holding constant the effects of Prior TX. Results from this analysis do not show a

statistically significant relationship between BEP and Optimism (N=175, r = .15, p = .06). Thus, Hypothesis 5 was not supported. Additionally, in order to thoroughly examine the relationship between BEP and Optimism, an exploratory bivariate correlation was conducted between the two variables, not controlling for the effects of Prior TX. Results from this analysis also show no significant relationship between BEP and Openness to Experience (N=175, r = .11, p = .11).

Hypothesis 6. Hypothesis 6 states that BEP will be positively associated with Psychological Mindedness (as indicated by $p < .05$ and positive r). To test this relationship, a partial correlation analysis was conducted to examine the exent to which BEP and PM are related, while holding constant the effects of Prior TX. Results from this analysis show a statistically significant relationship between BEP and PM (N=175, r = .30, $p < .001$). Thus, Hypothesis 6 was supported. Additionally, in order to thoroughly examine the relationship between BEP and PM, an exploratory bivariate correlation was conducted between the two variables, not controlling for the effects of Prior TX. Results from this analysis also show a significant positive relationship between BEP and PM (N=175, r = .30, $p < .001$).

Exploratory Analyses

Although no specific a priori hypotheses were made regarding the following analyses, they are included here in order to provide a thorough analysis of the BEP scale and how it relates to other variables.

Supplemental analyses. Specific hypotheses were made with regard to two factors of the Big Five: Openness to Experience and Extraversion. Additionally, exploratory correlational analyses were conducted on the remaining three factors (Conscientiousness, Agreeableness, and Neuroticism). Identical supplemental analyses were also conducted on Treatment-Rejecting attitudes (RXR).

Conscientiousness. First, BEP was examined in relationship to Conscientiousness. Bivariate correlational analyses revealed a statistically significant postvie relationship between BEP and Conscientiousness (N=175, r = .16, p < .05). Moreover, partial correlation analyses show that this relationship remains significant even when holding constant the effects of Prior TX (N=175, r = .18, p < .05).

Agreeableness. Second, BEP was examined in relationship to Agreeableness. Bivariate correlational analyses revealed a statistically significant postve relationship between BEP and Agreeableness (N=175, r = .27, p < .001). Moreover, partial correlation analyses show that this relationship remains significant even when holding constant the effects of Prior TX (N=175, r = .28, p < .001).

Neuroticism. Third, BEP was examined in relationship to Neuroticism. Bivariate correlational analyses show no significant relationship between BEP and Neuroticism (N=175, r = -.02, p = .78). Partial correlation analyses also show no significant relationship between BEP and Neuroticism when holding constant the effects of Prior TX (N=175, r = -.07, p = .34).

Treatment-Rejection. No specific hypotheses were made regarding the relationship between BEP and treatment rejection (RXR), yet inclusion of this measure and analysis of its relationship with BEP will further illuminate information regarding the BEP scale. Bivariate correlational analyses show no significant relationship between BEP and RXR (N=175, r = -.10, p = .18). Partial correlation analyses also show no significant relationship between BEP and RXR when holding constant the effects of Prior TX (N=175, r = -.06, p = .43).

For a complete list of correlations between BEP and cognate measures, see Table 9.

Brief Discussion

The aim of Study 2 was to examine the convergent, incremental, and construct validity of the refined BEP scale developed in Study 1. Results from Study 2 reveal that the BEP scale demonstrates adequate convergent validity with MPEQ and BAPS, and can be considered a somewhat unique measure, demonstrating adequate incremental validity with only the MPEQ. Results from Study 2 also provide important information regarding the construct validity of the BEP scale. Specifically, it is positively associated with Extraversion, Psychological Mindedness, Conscientiousness, and Agreeableness. Additionally, it is not related to Openness, Optimism, or Treatment Rejection.

CHAPTER 4

DISCUSSION

The purpose of the present study was to develop and examine the psychometric

properties of the proposed Belief in the Efficacy of Psychotherapy (BEP) scale. This was

accomplished by carrying out two separate studies with independent samples.

Study 1

The aim of Study 1 was to develop the BEP scale, examine its internal consistency

reliability, and refine the scale by removing any non-optimal items prior to moving into Study 2.

Item Removal. Results from Study 1 indicated the removal of four items based on poor

inter-item correlations. The removed items were as follows: a) *Psychotherapy patients improve*

mainly as a result of psychiatric medication, b) *Talking to a friend or family member about*

pesonal problems is just as effective as talking to a therapist, c) *Psychotherapy has the ability to*

"fix" most people, and d) *You can solve any psychological problem in psychotherapy.*

Examining the content of these items post hoc, I believe there are two primary reasons that may

explain their poor fit with the other items.

First, two of these items refer loosely to treatments other than psychotherapy (namely,

items a and b). These items were created with the intention to measure beliefs about other

interventions in relation to psychotherapy (i.e., does medication or general use of social support

account for the same degree of benefit as psychotherapy?). However, these items may not have

actually been tapping into the intended content, as they were the only items to mention

alternatives to psychotherapy (rather than addressing psychotherapy directly) and they did not

"hang together" statistically with the other items. Second, the other two items used extreme

language (namely, items c and d) compared to the other items. This strong wording may explain why these items stand out as inconsistent with the others.

Internal Consistency. Following the removal of these four items, BEP was developed into a scale demonstrating strong internal consistency. Moreover, this strong reliability was replicated utilizing the data collected in Study 2. Thus, BEP demonstrates strong internal consistency.

Factor structure. Although no specific hypotheses were stated regarding the factor structure of the BEP scale, it was theorized as a single-factor measure. Thus, an exploratory factor analysis of the BEP scale was conducted using data collected in Study 1. Results show that BEP does consist of a single factor, which supports the theoretical underpinnings of this measure. The results of this exploratory factor analysis were replicated with data collected in Study 2. A logical next step in future research may be verifying this finding with a confirmatory factor analysis.

Study 2

The aim of Study 2 was to examine the convergent, incremental, and construct validity of the BEP scale that was developed and refined in Study 1.

Convergent Validity. BEP demonstrates convergent validity with the BAPS and MPEQ scales, meaning that it is adequately similar to scales with which it *should* logically share similar content. However, for a new scale to be considered additive to the present literature, it must also demonstrate discriminant validity, defined in this study by a measure of incremental validity.

Incremental Validity. The present study utilizes one's degree of intention to seek treatment (Intent TX) as the criterion-related validity item against which to examine incremental validity. Theoretically, if one believes that psychotherapy is beneficial, then one would also be

likely to utilize psychotherapy if it became necessary. As expected, the Intent TX variable was positively correlated with BEP, which supports its use for the purposes of this study.

BEP demonstrates adequate incremental validity with respect to the MPEQ scale, meaning that it accounts for unique variance in the criterion-related validity item, Intent TX, above and beyond the MPEQ. However, when examined for incremental validity with respect to the BAPS, BEP does not demonstrate incremental validity (i.e., it does not account for any more variance than does BAPS). Neither does the BEP scale demonstrate incremental validity with respect to the combined effects of both MPEQ and BAPS. How can this be understood?

MPEQ. The MPEQ, despite having been developed and normed on a non-clinical sample, aims to assess the treatment expectations of someone who *is about to enter therapy.* By contrast, BEP measures the belief system of a non-clinical population. Moreover, the sample utilized for the purposes of the development of this scale was also non-clinical. Whereas the MPEQ's construct of interest (expectations for the process and outcome of therapy) is closely in-line with the BEP scale, this distinction may help explain the different ways in which MPEQ and BEP account for variance in one's intention to seek treatment (Intent TX).

BAPS. Additionally, the BAPS aims to measure beliefs regarding psychological services more generally than the MPEQ, without emphasis on individuals who are about to enter treatment. This is more closely in-line with the construct and aim of BEP, which may explain the similar ways in which BEP and BAPS relate to the criterion validity item Intent TX. I expected BEP to demonstrate incremental validity with respect to BAPS due to differences in item content. While BAPS and BEP both assess beliefs about psychotherapy, the overwhelming majority of BAPS items assess beliefs about psychotherapy process or stigma. By contrast, BEP assesses *exclusively* outcome expectations. Given these differences, I expected BEP and BAPS

to demonstrate discriminant predictive validity over the criterion validity item Intent TX. Nonetheless, results from the incremental validity analyses indicate that these differences were less important than expected, and BEP did not account for unique variance in the criterion validity item Itent TX. With this result in mind, the author posits that perhaps BEP is not all that different from BAPS with respect to predicting one's intentions to seek treatment. Results from this study seem to indicate that BEP may perhaps be redundant with BAPS; yet it is important to note that incremental validity was measured vis-à-vis one specific criterion validity item (Intent TX). It is possible that BEP may demonstrate incremental validity above and beyond the BAPS scale with respect to some alternative criterion validity item. However, within the scope of the present study, it must be stated that BEP does not fully demonstrate adequate incremental validity.

Construct Validity. In addition to examining convergent and incremental validity of the BEP scale, this study examined its construct validity by conducting a series of correlational analyses with personality measures. These analyses were conducted in an effort to further understand what the newly developed BEP scale is (and is not) associated with. Results from these analyses reveal that BEP is positively associated with Extraversion, Psychological Mindedness, Conscientiousness, and Agreeableness. In other words, individuals who score high on BEP (i.e., they have positive beliefs about the efficacy of psychotherapy) tend to be more extraverted, psychologically-minded, conscientious, and agreeable. Additionally, individuals who have been in psychotherapy previously are more likely to score higher on BEP. This finding is consistent with some previous research in this area (Ægisdóttir & Gerstein, 2009; Halgin, et al., 1987) yet inconsitent with other findings (Furnham, et al., 1992) which posits prior experience with therapy may be related with "skeptical" attitudes towards mental health care.

Moreover, results from this study indicate that BEP is not related to Openness, Optimism, Neuroticism, or Treatment-Rejecting Attitudes. Some of these findings are surprising, as researchers have previously identified a positive relationship between mental health treatment expectations and Openness to Experience (Hatchett & Han, 2006; Tinsley, Hinson, Holt, & Tinsley, 1990). Yet, this finding is conceptually consistent with the finding that BEP is not related to treatment-rejecting attitudes. If BEP is unrelated to a general trait of being open to new experiences (e.g., therapy), then it also makes sense that BEP is unrelated to a tendency to reject mental health treatment, a sort of "closed-ness" to therapy. Another of these surprising findings is the lack of relationship between BEP and Optimism. Whereas I expected BEP and Optimism to be positively correlated with one another, the results tell a different story. This finding indicates that BEP is unique from an overall tendency to view things optimistically.

Summary of Findings

Overall findings from the present study show that BEP is an internally consistent, single-factor scale that demonstrates adequate convergent validity. Its uniqueness from other measures is questionable at best, yet further research will be necessary to firmly establish this. The construct of interest is positively related to having been in therapy previously, intending to seek treatment in the future if personally relevant, extraversion, psychological mindedness, conscientiousness, and agreeableness.

Limitations of the Present Study

Sample. One obvious limitation of the present study is the use of undergraduate college students as participants. As the aim of the present study is to measure the beliefs about psychotherapy in the general (non-clinical) population, using such a restricted sample likely yields a limited range of data. The students recruited for participation in this study were all

undergraduates at the same southeastern univerisity, and they were all recruited from introductory psychology courses. Thus, participants were likely similar in geographic location, education level, age, and socioeconomic status. Additionally, uniform enrollment in college-level psychology courses may also present a bias in response patterns.

Demographics. For feasibility and privacy purposes, no demographic or identifying information was requested with participants' responses. However, this is also a limitation. Inclusion of additional data such as gender, age, college major, ethnicity, religion, and education level may have been valuable in the examination of this construct and its correlates.

Response Errors. Other limitations include those associated with use of self-report measures. Although efforts were made to reduce these limitations (e.g., in-person administration, use of a standard classroom setting, verbal description of the task by the principal investigator, pen-and-paper format), some remain. Specifically, it is possible that some participants responded dishonestly, rushed through the questions without thoroughly reading them, responded randomly, or misunderstood the directions.

Directions for Future Research

Correcting for Limitations. Future research in this area should address some of the noted limitations by including demographic information and broadening the heterogeneity of the sample. This would increase variance in the sample and may impact the results. In addition to correcting for limitations, there are a number of future lines of research that would expand upon the present study.

Examining the Relationship between BEP and BAPS. First, it will be important to closely examine the nature of the relationship between BEP and BAPS, as results from the present study indicate that they are quite similar. As noted above, this finding was based on the

incremental validity of BEP above and beyond the BAPS with respect to Intent TX as the criterion-related validity item. It may be informative to examine incremental validity of BEP with alternative criterion-related validity items. Specifically, future research may include a measure of *actually* presenting for psychotherapy rather than a measure of intent. This would of course require a much larger-scale study, but it may provide valuable insight into this area of inquiry. Additionally, it might be useful to re-assess the incremental validity of BEP over BAPS with a different population than was used in the present study. Besides re-examining incremental validity between BEP and BAPS, it may be useful to conduct a full analysis of the relationships each BEP and BAPS have with other cognate measures. This may provide insight into the similarities and differences between the two scales.

BEP in a Clinical Population. Expanding on the present study even further, future research might examine BEP in a clinical population or across psychiatric diagnoses. It would be interesting to understand how this construct applies populations other than a non-clinical population or how certain psychiatric conditions might affect one's score on BEP. For instance, an individual with paranoid features may be less likely to endorse high levels of BEP. Another line of research with BEP in a clinical setting may examine scores of BEP over time across the course of treatment. A longitudinal study such as this might examine BEP scores prior to beginning therapy, early in therapy, later in therapy, and post-termination. Including time and experience with psychotherapy into the research would add a dimension of understanding about BEP not afforded by the scope of the present study.

Conclusion

Although the present study does have some notable limitations, it also serves as a sound beginning to a line of research on the BEP scale. Findings from this study cannot be considered

entirely comprehensive, as there are many additional avenues of inquiry to be taken prior to making any final conclusions, especially regarding the validity of the construct. Yet, results from the present study suggest the following: 1) BEP demonstrates strong reliability, 2) BEP is made up of a single factor, 2) BEP demonstrates strong construct validity with MPEQ and BAPS, 3) Utilizing Intent TX as the criterion-related validity item, BEP demonstrates adequate incremental validity with respect to MPEQ but not with respect to BAPS or the combined effects of MPEQ and BAPS, 4) Individuals who have previous experience in psychotherapy tend to score higher on BEP than do individuals with no prior psychotherapy experience, 5) BEP is positively related to the Big Five factors of Extraversion, Conscientiousness, and Agreeableness, 6) BEP is positively associated with Psychological Mindedness, 7) BEP shares no relationship with the Big Five factors of Openness to Experience or Neuroticism, 8) BEP shares no relationship with Optimism or attitudes of Treatment-Rejection. Further research in these areas will be critical in fully understanding the discriminant and construct validity of the BEP scale. Once the BEP scale has been thoroughly researched, assuming sufficient validity is established, it has the potential to play a valuable role in studies of mental health outreach as well as providing important information about the beliefs of potential psychotherapy patients.

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APPENDICES

Appendix A

Table 1

Item	Corrected Item Total Correlation	Cronbach's Alpha if Deleted
Item-Total Statistics for Original 15 Belief in the Efficacy of Psychotherapy Items (Psychometrics Course Project)		
1. Psychotherapy can help people get through difficult times in their lives.	.22	.71
2. Psychotherapy patients improve mainly as a result of psychiatric medication.	.44	.69
3. In general, I don't believe that talking to a professional is an effective way to deal with problems.	.39	.69
4. Psychotherapy can be an effective way to improve one's quality of life.	.68	.67
5. Talking to a friend or family member about personal problems is just as effective as talking to a psychologist.	.69	.64
6. Talking with a psychologist is a poor way to get rid of emotional conflicts.	.54	.68
7. Talking to a psychologist is a good way to become more comfortable with oneself.	.55	.68
8. Psychotherapy has the ability to "fix" most people.	.03	.75
9. Psychotherapy can help people learn to function better at school.	.60	.68
10. You can solve any psychological problem in psychotherapy.	-.32	.80
11. Psychotherapy seems pretty pointless to me.	.27	.71
12. Psychotherapy can help people learn to function better at work.	.34	.70
13. Talking to a psychologist cannot enhance one's satisfaction with life.	.57	.68
14. People don't get better as a result of psychotherapy.	.36	.70
15. Psychotherapy can help people have more satisfying relationships.	.56	.69

Table 2

**Item-Total Statistics for Revised Belief in the Efficacy of Psychotherapy Scale
(Psychometrics Course Project)**

Item	Corrected Item Total Correlation	Cronbach's Alpha if Deleted
1. Psychotherapy patients improve mainly as a result of psychiatric medication.	.40	.85
2. In general, I don't believe that talking to a professional is an effective way to deal with problems.	.57	.84
3. Psychotherapy can be an effective way to improve one's quality of life.	.81	.82
4. Talking to a friend or family member about personal problems is just as effective as talking to a psychologist.	.70	.82
5. Talking with a psychologist is a poor way to get rid of emotional conflicts.	.58	.83
6. Talking to a psychologist is a good way to become more comfortable with oneself.	.63	.83
7. Psychotherapy can help people learn to function better at school.	.48	.84
8. Psychotherapy can help people learn to function better at work.	.30	.85
9. Talking to a psychologist cannot enhance one's satisfaction with life.	.55	.83
10. People don't get better as a result of psychotherapy.	.57	.84
11. Psychotherapy can help people have more satisfying relationships.	.65	.83

Note: Item numbers represents new item numbers after deleting bad items.

Table 3

Item-Total Statistics for Original 17 Belief in the Efficacy of Psychotherapy Items		
Item	Corrected Item Total Correlation	Cronbach's Alpha if Deleted
1. Psychotherapy can help people get through difficult times in their lives.	.58	.82
2. Psychotherapy patients improve mainly as a result of psychiatric medication.	.04	.85
3. In general, I don't believe that talking to a therapist is an effective way to deal with problems.	.63	.82
4. Psychotherapy can be an effective way to improve one's quality of life.	.55	.82
5. Talking to a friend or family member about personal problems is just as effective as talking to a therapist.	.28	.84
6. Talking with a therapist is a poor way to get rid of emotional conflicts.	.53	.82
7. Talking to a therapist is a good way to become more comfortable with oneself.	.45	.83
8. Psychotherapy has the ability to "fix" most people.	.21	.84
9. Psychotherapy can help people learn to function better at school.	.52	.82
10. You can solve any psychological problem in psychotherapy.	-.06	.85
11. Psychotherapy seems pretty pointless to me.	.69	.81
12. Psychotherapy can help people learn to function better at work.	.55	.82
13. Talking to a therapist cannot enhance one's satisfaction with life.	.40	.83
14. People don't actually get better as a result of psychotherapy.	.63	.82
15. Psychotherapy can help people have more satisfying relationships.	.60	.82
16. Weighing the possible benefits against the cost, psychotherapy just doesn't seem worth the money.	.58	.82
17. Psychotherapy can enhance one's ability to be insightful.	.46	.83

Note: Items 2, 3, 5, 6, 11, 13, 14, and 16 are reverse-coded items
Note: Items 2, 5, 8, 10 are to be removed based on low item-total correlation.

Table 4

Item-Total Statistics for Revised 13 Belief in the Efficacy of Psychotherapy Items, Study 1

Item	Corrected Item Total Correlation	Cronbach's Alpha if Deleted
1. Psychotherapy can help people get through difficult times in their lives.	.61	.87
2. In general, I don't believe that talking to a therapist is an effective way to deal with problems.	.62	.87
3. Psychotherapy can be an effective way to improve one's quality of life.	.55	.87
4. Talking with a therapist is a poor way to get rid of emotional conflicts.	.51	.87
5. Talking to a therapist is a good way to become more comfortable with oneself.	.44	.88
6. Psychotherapy can help people learn to function better at school.	.55	.87
7. Psychotherapy seems pretty pointless to me.	.70	.86
8. Psychotherapy can help people learn to function better at work.	.59	.87
9. Talking to a therapist cannot enhance one's satisfaction with life.	.41	.88
10. People don't actually get better as a result of psychotherapy.	.63	.87
11. Psychotherapy can help people have more satisfying relationships.	.62	.87
12. Weighing the possible benefits against the cost, psychotherapy just doesn't seem worth the money.	.60	.87
13. Psychotherapy can enhance one's ability to be insightful.	.49	.87

Note: Item numbers represents new item numbers after deleting bad items.
Note: Items 2, 4, 7, 9, 10, and 12 are reverse-coded items.

Table 5

	Mean (*M*)	Standard Deviation (*SD*)
Descriptive Statistics for the BEP Scale, Study 2		
Overall	48.67	7.23
Prior TX: Yes	51.93	9.82
Prior TX: No	48.00	6.41

Table 6

Item-Total Statistics for 13 Belief in the Efficacy of Psychotherapy Items, Study 2		
Item	Corrected Item Total Correlation	Cronbach's Alpha if Deleted
1. Psychotherapy can help people get through difficult times in their lives.	.59	.89
2. In general, I don't believe that talking to a therapist is an effective way to deal with problems.	.61	.89
3. Psychotherapy can be an effective way to improve one's quality of life.	.64	.89
4. Talking with a therapist is a poor way to get rid of emotional conflicts.	.63	.89
5. Talking to a therapist is a good way to become more comfortable with oneself.	.65	.89
6. Psychotherapy can help people learn to function better at school.	.68	.89
7. Psychotherapy seems pretty pointless to me.	.70	.89
8. Psychotherapy can help people learn to function better at work.	.62	.89
9. Talking to a therapist cannot enhance one's satisfaction with life.	.41	.90
10. People don't actually get better as a result of psychotherapy.	.64	.89
11. Psychotherapy can help people have more satisfying relationships.	.64	.89
12. Weighing the possible benefits against the cost, psychotherapy just doesn't seem worth the money.	.66	.89
13. Psychotherapy can enhance one's ability to be insightful.	.46	.90

Note: Items 2, 4, 7, 9, 10, and 12 are reverse-coded items.

Table 7

Summary of Exploratory Factor Analysis Results for 13 BEP Items Using Principal Axis Factoring

	Single-Factor Loadings	
Item	Study 1 (N = 213)	Study 2 (N = 175)
Psychotherapy can help people get through difficult times in their lives.	.65	.64
In general, I don't believe that talking to a therapist is an effective way to deal with problems.	.67	.64
Psychotherapy can be an effective way to improve one's quality of life.	.59	.69
Talking with a therapist is a poor way to resolve emotional conflicts.	.55	.67
Talking to a therapist is a good way to become more comfortable with oneself.	.48	.68
Psychotherapy can help people learn to function better at school.	.59	.73
Psychotherapy seems pretty pointless to me.	.75	.73
Psychotherapy can help people learn to function better at work.	.63	.67
Talking to a therapist cannot enhance one's satisfaction with life.	.44	.42
People don't actually get better as a result of psychotherapy.	.66	.67
Psychotherapy can help people have more satisfying relationships.	.67	.68
Weighing the possible benefits against the cost, psychotherapy just doesn't seem worth the money.	.64	.71
Psychotherapy can enhance one's ability to be insightful.	.53	.48
% of variance	37%	42.5%
Eigenvalue	5.4	6.1
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.9	.9
Bartlett's Test of Sphericity	$p < .001$	$p < .001$

Table 8a

Multiple Regression Analyses Examining the MPEQ and BEP as Predictors of Intentions to Seek Treatment

	B	SE	β	R^2	F
Model 1				.09	16.26*
MPEQ	.017	.004	.293*		
Model 2				.21 (ΔR^2 = .13*)	23.06* (ΔF = 27.38*)
MPEQ	.005	.005	.080		
BEP	.063	.012	.414*		

Note: MPEQ = Milwaukee Psychotherapy Expectations Questionnaire; BEP = Belief in the Efficacy of Psychotherapy

p < .001

Table 8b

Multiple Regression Analyses Examining the BAPS and BEP as Predictors of Intentions to Seek Treatment

	B	SE	β	R^2	F
Model 1				.362	98.06*
BAPS	.057	.006	.601*		
Model 2				.363 (ΔR^2 = .001)	48.92* (ΔF = .22)
BAPS	.054	.008	.571*		
BEP	.006	.013	.042		

Note: BAPS = Beliefs About Psychological Services; BEP = Belief in the Efficacy of Psychotherapy

p < .001

Table 8c

Multiple Regression Analyses Examining the MPEQ, BAPS and BEP as Predictors of Intentions to Seek Treatment

	B	SE	β	R^2	F
Model 1				.364	49.3*
MPEQ	-.004	.004	-.062		
BAPS	.060	.007	.636*		
Model 2				.366 ($\Delta R^2 = .002$)	32.91* ($\Delta F = .43$)
MPEQ	-.004	.004	-.072		
BAPS	.057	.009	.599*		
BEP	.009	.014	.059		

Note: MPEQ = Milwaukee Psychotherapy Expectations Questionnaire; BAPS = Beliefs About Psychological Services; BEP = Belief in the Efficacy of Psychotherapy
p < .001

Table 9

	Belief in the Efficacy of Psychotherapy (BEP)	
	Bivariate (*N* = 175)	Partial (Controlling for Prior TX) (*N* = 175)
Table of Bivariate and Partial Correlations Between BEP and Cognate Measures		
MPEQ	.52***	.51***
BAPS	.72***	.71***
Openness	.10	.07
Conscientiousness	.16*	.18*
Extraversion	.16*	.16*
Agreeableness	.27***	.28***
Neuroticism	-.02	-.07
Optimism	.12	.15
PM	.30***	.30***
RXR	-.10	-.06
Intent TX	.46***	.42***

Note: MPEQ = Milwaukee Psychotherapy Expectations Questionnaire, BAPS = Beliefs About Psychological Services Scale, PM = Psychological Mindedness, RXR = Treatment Rejection Scale
*p <.05, **p < .01, ***p <.001

Appendix B

Belief in the Efficacy of Psychotherapy (BEP) Items

1. Psychotherapy can help people get through difficult times in their lives.

2. Psychotherapy patients/clients improve mainly as a result of psychiatric medication.

3. In general, I don't believe that talking to a therapist is an effective way to deal with problems.

4. Psychotherapy can be an effective way to improve one's quality of life.

5. Talking to a friend or family member about personal problems is just as effective as talking to a therapist.

6. Talking with a therapist is a poor way to resolve emotional conflicts.

7. Talking to a therapist is a good way to become more comfortable with oneself.

8. Psychotherapy has the ability to "fix" most people.

9. Psychotherapy can help people learn to function better at school.

10. You can solve any psychological problem in psychotherapy.

11. Psychotherapy seems pretty pointless to me.

12. Psychotherapy can help people learn to function better at work.

13. Talking to a therapist cannot enhance one's satisfaction with life.

14. People don't get actually better as a result of psychotherapy.

15. Psychotherapy can help people have more satisfying relationships.

16. Weighing the possible benefits against the cost, psychotherapy just doesn't seem worth the money.

17. Psychotherapy can enhance one's ability to be insightful.

Note: Items 2, 3, 5, 6, 11, 13, 14, and 16 are to be reverse-coded

Belief in the Efficacy of Psychotherapy (BEP) Items—Revised, per Study 1

1. Psychotherapy can help people get through difficult times in their lives.

2. In general, I don't believe that talking to a therapist is an effective way to deal with problems.

3. Psychotherapy can be an effective way to improve one's quality of life.

4. Talking with a therapist is a poor way to resolve emotional conflicts.

5. Talking to a therapist is a good way to become more comfortable with oneself.

6. Psychotherapy can help people learn to function better at school.

7. Psychotherapy seems pretty pointless to me.

8. Psychotherapy can help people learn to function better at work.

9. Talking to a therapist cannot enhance one's satisfaction with life.

10. People don't get actually better as a result of psychotherapy.

11. Psychotherapy can help people have more satisfying relationships.

12. Weighing the possible benefits against the cost, psychotherapy just doesn't seem worth the money.

13. Psychotherapy can enhance one's ability to be insightful.

Note: Item numbers represents new item numbers after deleting bad items.
Note: Items 2, 4, 7, 9, 10, and 12 are reverse-coded items.

Milwaukee Psychotherapy Expectations Questionnaire (MPEQ) Items

1. I expect my therapist will provide support.
2. My therapist will provide me feedback.
3. I will be able to express my true thoughts and feelings.
4. I will feel comfortable with my therapist.
5. My therapist will be sincere.
6. My therapist will be interested in what I have to say.
7. My therapist will be sympathetic.
8. I expect that I will come to every appointment.
9. Therapy will provide me with an increased level of self-respect.
10. After therapy, I will have the strength needed to avoid feelings of distress in the future.
11. I anticipate being a better person as a result of therapy.
12. After therapy, I will be a much more optimistic person.
13. I expect that I will tell my therapist if I have concerns about therapy.

Note: Items 1-8 are Process Expectation Items and 9-12 are Outcome Expectations Items

Beliefs About Psychological Services Scale (BAPS) Items

1. If a good friend asked my advice about a serious problem, I would recommend that he/she see a psychologist.
2. I would be willing to confide my intimate concerns to a psychologist.
3. Seeing a psychologist is helpful when you are going through a difficult time in your life.
4. At some future time, I might want to see a psychologist.
5. I would feel uneasy going to a psychologist because of what some people might think.
6. If I believed I were having a serious problem, my first inclination would be to see a psychologist.
7. Because of their training, psychologists can help you find solutions to your problems.
8. Going to a psychologist means that I am a weak person.
9. Psychologists are good to talk to because they do not blame you for the mistakes you have made.
10. Having received help from a psychologist stigmatizes a person's life.
11. There are certain problems that should not be discussed with a stranger such as a psychologist.
12. I would see a psychologist if I were worried or upset for a long period of time.
13. Psychologists make people feel that they cannot deal with their problems.
14. It is good to talk to someone like a psychologist because everything you say is confidential.
15. Talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.
16. Psychologists provide valuable advice because of their knowledge about human behavior.
17. It is difficult to talk about personal issues with highly educated people such as psychologists.
18. If I thought I needed psychological help, I would get this help no matter who knew I was receiving assistance.

The TTC "Big Five" Personality Traits—Sample items

1. People who know me well think I am a very nice, kind person. (A)
2. People who know me well think I am a very nice, kind person. (C)
3. I like to go to big parties where there are a lot of people. (Ex)
4. I often feel tense or stressed out. (N)
5. I like to find out how people live in other places in the world. (O)

*Note: Item 1 is an item of Agreeableness, Item 2 is an item of Conscientiousness, Item 3 is an item of Extraversion, Item 4 is an item of Neuroticism, and Item 5 is an item of Openness to Experience.

The TTC Optimism—Sample items

1. Even when something goes wrong for me, I know that it will always get better.
2. When bad things happen, I still look on the bright side.

The Psychological Mindedness Scale (PMS) Items

1. I would be willing to talk about my personal problems if I thought it might help me or a member of my family.

2. I am always curious about the reasons people behave as they do.

3. I think that most people who are mentally ill have something physically wrong with their brain.

4. When I have a problem, if I talk about it with a friend, I feel a lot better.

5. Often I don't know what I'm feeling.

6. I am willing to change old habits to try a new way of doing things.

7. There are certain problems which I could not discuss outside my immediate family.

8. I often find myself thinking about what made me act in a certain way.

9. Emotional problems can sometimes make you physically sick.

10. When you have problems, talking about them with other people just makes them worse.

11. Usually, if I feel an emotion, I can identify it.

12. If a friend gave me advice about how to do something better, I'd try it out.

13. I am annoyed by someone, whether he is a doctor or not, who wants to know about my personal problems.

14. I find that once I develop a habit, it is hard to change, even if I know there is another way of doing things that might be better.

15. I think that people who are mentally ill often have problems which began in their childhood.

16. Letting off steam by talking to someone about your problems often makes you feel a lot better.

17. People sometimes say that I act as if I'm having a certain emotion (anger, for example) when I am unaware of it.

18. I get annoyed when people give me advice about changing the way I do things.

19. It would not be difficult for me to talk about personal problems with people such as doctors and clergymen.

20. If a good friend of mine suddenly starts to insult me, my first reaction might be to try to understand why he was so angry.

21. I think that when a person has crazy thoughts, it is often because he is very anxious and upset.

22. I've never found that talking to other people about my worries helps much.

23. Often, even though I know that I'm having an emotion, I don't know what it is.

24. I like to do things the way I've done them in the past. I don't like to try to change my behavior much.

25. There are some things in my life that I would not discuss with anyone.

26. Understanding the reasons you have deep down for acting in certain ways is important.

27. At work, if someone suggested a different way of doing a job that might be better, I'd give it a try.

28. I've found that when I talk about my problems to someone else, I come up with ways to solve them that I hadn't thought of before.

29. I am sensitive to the changes in my own feelings.

30. When I learn a new way of doing something, I like to try it out to see if it would work better than what I had been doing before.

31. It is important to be open and honest when you talk about your troubles with someone you trust.

32. I really enjoy trying to figure other people out.

33. I think that most people with mental problems have probably received some kind of injury to their head.

34. Talking about your worries to another person helps you to understand problems better.

35. I'm usually in touch with my feelings.

36. I like to try new things, even if it involves taking risks.

37. It would be very difficult for me to discuss upsetting or embarrassing aspects of my personal life with people, even if I trust them.

38. If I suddenly lost my temper with someone, without knowing exactly why, my first impulse would be to forget about it.

39. I think that what a person's environment (family, etc.) is like has little to do with whether he develops mental problems.

40. When you have troubles, talking about them to someone else just makes you more confused.

41. I frequently don't want to delve too deeply into what I'm feeling.

42. I don't like doing things if there is a chance that they won't work out.

43. I think that no matter how hard you try, you'll never really understand what makes people tick.

44. I think that what goes on deep down in a person's mind is important in determining whether he will have a mental illness.

45. Fear of embarrassment or failure doesn't stop me from trying something new.

Note. Items 3, 5, 7, 10, 13, 14, 18, 22-25, 33, 37-43 are reverse-score

The Personality Assessment Inventory Treatment Rejection Scale (RXR)

Instructions: Read each statement and decide whether it is an accurate statement about you.
- If the statement is FALSE, NOT AT ALL TRUE, circle F.
- If the statement is SLIGHTLY TRUE, circle ST.
- If the statement is MAINLY TRUE, circle MT.
- If the statement is VERY TRUE, circle VT.

Give **your own opinion** of yourself. Be sure to answer every statement. Begin with the first statement and respond to every statement.

F = FALSE, NOT AT ALL TRUE	ST = SLIGHTLY TRUE	MT = MAINLY TRUE	VT = VERY TRUE

1. I have some inner struggles that cause problems for me.	F	ST	MT	VT
2. I need to make some important changes in my life.	F	ST	MT	VT
3. I need to change some things about myself, even if it hurts.	F	ST	MT	VT
4. I need some help to deal with important problems.	F	ST	MT	VT
5. I'm curious why I behave the way I do.	F	ST	MT	VT
6. I'm comfortable with myself the way I am.	F	ST	MT	VT
7. Many of my problems are my own doing.	F	ST	MT	VT
8. I can solve my problems by myself.	F	ST	MT	VT

Note: Items 1, 2, 3, 4, 5 and 7 are reverse-coded

Vita

Erin G. Volpe was born in Easton, PA in 1986. She attended high school and college in Pennsylvania, earning her B.A. in Psychology from the Pennsylvania State University in 2008. At Penn State, she had the pleasure of working with Dr. Kenneth Levy and Dr. Louis Castonguay on their psychotherapy and psychopathology research. In the fall of 2008, Erin began her graduate career at the University of Tennessee, where she has worked with Dr. Michael R. Nash for the past five years. Erin is interested in psychotherapy process and outcome research, and she is actively building her knowledge and skills of the clinical applications of psychology in the practice of psychotherapy. She has worked in the UT Psychological clinic for four years, and has completed three clinical externships during her time as a graduate student. In the summer of 2013, Erin will begin her clinical internship at the Pennsylvania Hospital, University of Pennsylvania Health System.