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**PREFERENCES FOR SYSTEMS OF PSYCHOTHERAPY AND BELIEFS  
ABOUT THE CAUSES OF DEPRESSION**

by  
Andrew S. Jarema

A Thesis

Submitted to the  
Department of Psychology  
College of Sciences and Mathematics  
In partial fulfillment of the requirement  
For the degree of  
Master of Arts in Clinical Mental Health Counseling  
at  
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Thesis Chair: Jim A. Haugh Ph.D.

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## Abstract

Andrew Jarema

### PREFERENCES FOR SYSTEMS OF PSYCHOTHERAPY AND BELIEFS ABOUT THE CAUSES OF DEPRESSION

2014

Jim A. Haugh, Ph.D.

Master of Arts in Clinical Mental Health Counseling

Despite multiple treatments being equally effective in treating depression, individuals may have preferences for which intervention they receive. There has been evidence that psychotherapy is preferred over medication or other professional treatments. “Psychotherapy,” however, is a broad term that does not capture the reality of diverse systems of therapy available to consumers. Therefore, the current study hypothesized that if given the choice between conceptually different types of psychotherapy, individuals would express a preference for at least one treatment over the others. Results from 221 college students indicate that when offered descriptions of problem-solving, cognitive, interpersonal, or behavioral activation therapies, both cognitive and problem-solving therapy are preferred treatments. Additionally, the current work incorporated factors that may influence the preferences measured. Specifically, a person’s beliefs about the causes of depression may better explain preferences. Therefore, the current study hypothesized that scores on the Reasons for Depression questionnaire (RFD; Addis, Truax, & Jacobson, 1995) would be higher or lower across each of the treatment options. For those that preferred behavioral activation therapy, every reason for depression was elevated indicating that participants in this group may believe depression is caused by a complex variety of reasons. Implications for future research in treatment preferences and treatment matching are discussed.

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## **Chapter 1**

### **Introduction**

Utilization of treatment for depression has trended upward in the past decade and current data approximates that 2.9% of the United States' population is seeking outpatient services for depression within a given year. Care is received from a variety of professional and non-professional sources. A large portion seeks counseling from mental health professionals, others seek medication management from their primary care doctor or psychiatrist, and others may receive consultation from nonprofessional sources (i.e. religious leaders or other authorities) (Marcus & Olfson, 2010). Professional treatments may all be equally viable in the amelioration of depressive symptoms (Grohol, 2008), but it is possible that the average person will have preferences for the treatment they receive. Treatment preferences may encompass the type of treatment given, the theoretical orientation and style of the therapist, the setting of the treatment, and many other factors (Swift, Callahan, & Volmer, 2010). The most common way treatment preferences are studied is by comparing the consumers' preferences of general treatment methods, like psychotherapy, medication, and approaches that combine the two.



## Chapter 2

### Literature Review

Results reviewed across many studies provide robust evidence that suggests individuals express a preference for some sort of psychotherapeutic intervention over medication, (Swift & Callahan, 2013; van Schaik et al., 2004). When additional options are added, the results across a number of studies are mixed. A range of 19-60% prefers a combined psychotherapy and medication option to either psychotherapy or medication alone (Backenstrass et al., 2006; Lin et al., 2005). Additionally, 3-44% were found to prefer no professional treatment (Backenstrass et al., 2006; Margrove, Thapar, Mensah, & Kerr , 2011) . The majority of the studies that provided additional options, however, still maintain psychotherapy as the most preferred choice.

Throughout this research, authors have noted that the depth of this finding is limited because they did not use an exhaustive list of psychotherapeutic treatment options available to consumers (Iselin & Addis, 2003; Bradley, McGrath, Brannen, & Bagnell, 2010). “Psychotherapy” is an umbrella term for a large variety of interventions that apply different psychological principles to approach a mental health concern (Norcross, 1990). These psychological principles can vary greatly and even conflict with each other. Focusing on evidence based treatments for depression alone, the American Psychological Association’s Task Force on Evidence-Based Practice (2006) lists behavioral activation therapy, cognitive therapy, problem-solving therapy, and interpersonal therapy as treatments with strong research in support of their effectiveness in treating depressive symptoms. Each of these treatments has inherently diverse etiological principles from which the goals, treatment techniques, and therapist role are derived that more closely

mimic the reality of available treatment options (Furnham, Pereira & Rawles, 2001; Iselin & Addis, 2003; Bradley et al., 2010; Swift, Callahan, Ivanovic, & Kominiak 2013). For example, whereas cognitive therapy may focus on the maladaptive patterns and errors in thinking, interpersonal therapy may focus on the conflicts of roles a person plays in their relationships. Behavioral activation may focus on how a person is avoiding or withdrawing from hobbies and responsibilities, and problem-solving therapy may focus on the stress caused by not being able to cope with life's problems. Given these various approaches, a preference expressed for psychotherapy may not be a complete reflection for the desires an individual may have to participate in any or all of these different types of treatment.

Even if these treatments are all equally viable, again, they may not be preferred equally; however, comparisons of preferences between different types of psychotherapy are not common in current literature. Instead, researchers offer findings that suggest people are motivated toward a range of general to more specified treatment approaches or goals. Individuals have been shown to give preferential consideration to general systems of treatment, approaching a problem through either biological, psychological, or mixed methods (Iselin & Addis, 2003). Preferences have also been shown for treatment styles that were either action-oriented or insight-oriented (Goates, Jones, & Hill, 2008). In addition, researchers suggest that those in a self-management therapy could identify whether they preferred behavioral or cognitive goals for their treatment (Rokke, Tomhave, & Jovic, 1999). The most specific data provided a list of specific target areas of concern, including existential anxiety, relationship problems, achievement related distress, and various other objectives for therapy. It was found that participants

expressed motivation to take part in treatments aimed at one target over others depending on what they felt they most preferred or would be most helpful to them (Meyer & Garcia-Roberts, 2007). Despite these findings not being linked to specific treatments, therapeutic styles and target goals are factors that are part of different types of psychotherapy; these findings suggest the possibility that that preferences would exist for specific treatments, had they been offered.

Because individuals have been shown to prefer psychotherapy over other treatments, researchers have also investigated factors that influence why one option is desired over another. In studies that compare psychotherapy to medication, differences in preferences have been associated with various demographic memberships and prior treatment experiences (Lin et al., 2005), personality factors (Bender, 2000), education level, and socioeconomic status (van Schaik et al., 2004). Throughout this research, these authors not only note the need to continue to investigate additional factors that may have an effect on the preferences, but also the need to study them within different the context of particular mental health concern.

Focusing on depression, preferences research has also examined the role of etiological beliefs on choice of one treatment over another. Etiological beliefs are cognitive models that encompass a person's way of thinking about the nature of their symptoms, the conceptualization for the factors that contribute to the problem, and the primary ways to cope or overcome a concern (Leventhal, Brissette, & Leventhal, 2003). Investigators reason that holding certain beliefs in the cause of depressive symptomology influences the perception of the treatment options available (Addis & Jacobson, 1996; Leykin et al., 2007). However, there is a difficulty with how to measure the complex

myriad of reasons individuals may express for their depressive symptoms (Brown et al., 2007). Both qualitative (Hansson, Chotai, & Bodlund, 2010) and various quantitative methods of measurement (Srinivasan, Cohen, & Parikh, 2003; Chen & Mak, 2008) have been developed to try to capture etiological beliefs about depression with mixed results. Perhaps one of the strongest and widely used measurement tools is the Reasons for Depression Questionnaire (RFD; Addis, Truax, & Jacobson, 1995). It was developed to measure the extent to which a person believes each of 9 distinct possible causes of depression. For example, one could indicate they believe depression is a character trait, due to interpersonal conflicts, linked to unresolved problems in childhood, or influenced by biology.

Utilizing this measure, etiological beliefs have been shown to be related to the perceived helpfulness and credibility of treatments (Addis & Jacobson, 1996). It may follow that if a particular treatment is viewed as more helpful, it may also be preferred over other treatments. When comparing psychotherapy to medication, one study using the RFD found that psychotherapy was preferred over other interventions when depression was believed to be linked to issues in childhood or a complex combination of causes (Khalsa, McCarthy, Sharpless, Barrett, & Barber, 2011). Likewise, it is also possible that etiological beliefs about depression could affect preferences for specific interventions as well. When someone identifies a specific cause to a problem, they often seek a congruent solution to match it (Ogden & Jubb, 2008) and those that feel they have identified the causes of depression may be attracted to a corresponding approach to the issue (Iselin & Addis, 2003). Recall that individuals have been shown to be motivated towards treatments for depression that were aimed at certain target issues (Meyer & Garcia-

Roberts, 2007). Within this same study, researchers also assessed the beliefs about the causes of depression using the RFD. They posited that there would be a congruence effect between perceived cause and desired treatment. Overall, for certain beliefs about the causes of depression, individuals had a corresponding motivation to seek treatment that matched it. Specifically, when someone endorsed unresolved issues in childhood or a biological predisposition as the cause of depression, they were likely to be motivated toward a treatment that targeted the respective domain. Even though specific types of psychotherapies for depression were not included, a congruence effect may be replicated if the treatments were offered. For instance, researchers also found that believing in interpersonal causes of depression corresponded to interpersonal oriented interventions. Interpersonal therapy is a specific type of psychotherapy that targets these domains and may be the preferred treatment if offered to those that believe interpersonal difficulties to be the main contributor to their depression.

## Chapter 3

### The Current Study

The current study aimed to answer two primary research questions. The first asked whether or not preferences for specific types of psychotherapy for depression exist. As discussed, individuals have been shown to express preferences for specific goals of treatment and other aspects inherent in different systems of psychotherapy. It was hypothesized that when presented with information regarding the goals and styles of behavioral activation, cognitive, interpersonal, and problem solving therapy, at least one option would be preferred more often than others. The second question asked if a person's belief in the cause of depression had an association with an individual's preferred treatment. It was hypothesized that not only would there be an overall association between beliefs about the cause of depression and preferred psychotherapy, but also that specific beliefs would be congruent to each of psychotherapeutic interventions compared.

## Chapter 4

### Method

#### 4.1 Participants

Participants were drawn from a mid-sized research university. Students enrolled in introductory psychology courses were recruited as part of a research participation requirement. The sample was intended to mimic demographic characteristics of the student body as a whole to generalize findings to the population of college aged individuals (U.S. Department of Education, 2013). Given the differences that may be inherent within students that take introductory psychology courses, some variability was expected. A power analysis using G\*Power3 software (Faul, Erdfelder, Lang, & Buchner, 2007) was conducted. The largest suggested sample size among the main analyses expecting a moderate effect size and using the standard .2 level for  $\beta$  error (Ellis, 2010) was 193 participants. A total of 328 participants completed the online survey. Data was then screened to exclude those participants that did not complete the measures in their entirety (i.e. were not comfortable answering all questions, closed the program early, or did not provide consent). Participants were also excluded if they spent fewer than 540 seconds on the survey. This was the average time spent by research assistants on reading all instructions and completing all measures. A final 221 participants were included for analyses. These participants were equally male and female, predominately Caucasian (70%), freshman students (52%), and had a mean age of 19.65 (SD=2.30) (see table 1 for full descriptive statistics). Additionally, the mean score on the BDI-II was 10.14 (SD=9.60) which indicated the sample endorsed minimal levels of depression on average; however, 53 participants (24%) in the sample fell at or above a score of 14, the cut off for

mild depressive symptoms. According to the discussed power analysis, there is not enough within this group to run with planned analyses. Therefore, all of the results will be reported with the final 221 participants as one group.

Table 1:

*Descriptive Statistics*

	N or Mean
Sex	
Male	112(50.7%)
Female	106 (48%)
Other	3(1.4%)
Race	
Caucasian	154(69.7%)
Other	23(10.4%)
African-American	21(9.5%)
Asian	12(5.4%)
Mixed	11(5%)
Ethnicity	
Non-Hispanic/Latino	193(87.3%)
Hispanic/Latino	28 (12.7%)
Academic Rank	
Freshman	115(52%)
Sophomore	48(21.7%)
Junior	37(16.7%)
Senior	19(8.6%)
Other	2(1%)
Age	19.7(SD=2.3)
Depression Severity (BDI-II)	9.3(SD=8.9)

## 4.2 Materials

**Treatment preferences.** Participants were given descriptions of 4 major psychotherapeutic treatments that are used to treat depressive disorders. Treatments were selected if they were rated as having strong research support according to the American Psychological Association Presidential Task Force on Evidence-Based Practice website



(2006). Treatments selected included cognitive, behavioral activation, problem solving, and interpersonal therapies. Descriptions of each treatment were adapted from the website and edited to balance reading level and information provided. Each description was edited to include statements of etiology of depression, the goals of treatment, and specific techniques used within treatment. The descriptions excluded statements about the length of treatment, direct comparisons to other treatments being studied, and references. Each was then tested using the Simple Measure of Gobbledygook (SMOG) index (McLaughlin, 1969), an assessment of reading level recommended for use in healthcare materials (Doak, Doak, & Root, 1996). Initial scores ranged from 16.4-19.6 with a mean of 18.1 which indicated graduate level readability. Given the population of participants, descriptions were further edited to meet a readability score between 11-13, which indicates high school to first year college education. Final reading levels for each description ranged from 11-12.1 with a mean of 11.5. After reading each description, participants are presented with each treatment randomly and asked to rate how strongly they prefer each treatment in comparison to the others on a scale of 1-7 indicating “no preference” to “strong preference. They then indicated their final treatment choice by selecting one of the randomly ordered options in a separate question.

**Reasons for Depression Questionnaire (RFD).** Beliefs about the causes of depressive were assessed using the RFD (Addis, Truax, & Jacobson, 1995) The RFD consists of 48 items that assess the degree to which people believe specific reasons to cause their depression. Each item is rated on a 4 point scale from 1 (Definitely not a reason) to 4 (Definitely a reason). The full RFD scale consists of 9 subscales indicating the degree of belief in causal reasons for depression (i.e. Characterological, Achievement,

Interpersonal conflict, Intimacy, Existential, Childhood, Physical, Relationship, and Biological) (Thwaites, Dagnan, Huey, & Addis, 2004). The average sum of all of the 9 subscales of the RFD may also be used to create a “complex reasons” factor. Higher scores on this factor would indicate that an individual believes that a combination of many factors result in depression (Khalsa et al., 2011). It contains 48 items rated on a 5-point Likert scale that begin “I am depressed because...” followed by a variety of reasons for depressive symptoms. Subscales are summed and averaged for a raw score. Because the study was completed by participants who may not endorse a current level of depression, participants were instructed to think about a time when they may have experienced symptoms of depression to answer the questions. Characterological reasons refer to an individual’s belief that depression is caused by a general disposition or personality trait (e.g. “... this is the way I’ve always been.”). Achievement refers to attainment of goals or standards (e.g. “...I can’t accomplish what I want to.”) Interpersonal conflict items include problems with social relationships (e.g. “...other people criticize me.”) whereas intimacy refers to the sense of intimate feelings with someone (e.g. “...I don’t feel loved.”). The childhood and relationship subscales are related to conflicts in childhood or with a spouse/partner. Physical subscale refers to behaviors that could cause depression (e.g. “...I am not active enough.”) which differs from the biological subscale that refers to structures of the brain being at fault. Subscales have maintained moderate to high levels of internal consistency throughout its development ranging from .73-.94 in clinical and non-clinical samples (Addis et al., 1995; Thwaites et al., 2004). Thwaites and his associates (2004) suggest that the measure may be useful with individuals presenting varying severities of depressive symptoms.

Subscales of the RFD are considered to have convergent validity as they have been related to functioning in corresponding domains. For example, those that endorse interpersonal conflict as a reason for depression also show lower social adjustment ratings (Addis et al., 1995).

The current study determined that cognitive, interpersonal, and problem-solving therapy each have face valid items on the RFD that seem to match the conceptualizations of these treatments. At face value, cognitive therapy matches items from characterological, interpersonal therapy corresponds to interpersonal reasons, and problem-solving seems to be related to achievement and existential items. In order to assess items that map onto behavioral activation therapy, 5 additional questions were created to supplement the original RFD. These questions were entered among other items of the RFD starting with the statement “I am depressed because...” and from a scale of 1 to 4. One example item is “I have stopped my usual routine.” In the current study, internal consistency for each of the original 9 subscales and the 1 additional added scale of the RFD ranged from .83-.92.

**Beck Depression Inventory-Second Edition (BDI-II).** The BDI-II (Beck, Steer, & Brown, 1996) has been widely used in young adult populations as a measure of depressive symptom severity. It was utilized to make comparisons between groups with lower and higher symptom severity of depression symptoms. It consists of 21 symptom oriented items which a participant rates on a 0-3 point scale with higher scores indicating increased endorsement of symptom severity. Severity of depression is derived from a raw score ranging from 0-63. Specific cut off points indicate minimal (0-13), mild (14-19),

moderate (20-28), and severe (29+) symptom level. The BDI-II has a high internal consistency (Cronbach's  $\alpha=0.92$ ) and good test-retest reliability.

**Additional questions and demographics.** A demographic survey requested participant age, sex identity, ethnic/racial identity, and academic rank. Additionally, participants were asked to provide open-ended responses about their beliefs about the causes of depression and their reasons for choosing their preferred treatment. This open-ended response was intended as a control to check if listed reasons corresponded to answers on the RFD. It also provided a way to check whether participants were reading instructions carefully. These questions were referred to in the screening of the data.

### **4.3 Procedure**

Participants were invited to participate in the study through an online experiment management system. As part of introductory psychology coursework, the participants were required to take part in a specified number of studies within the university. Description of the study included a general purpose of the study, stipulation for participation, and course credit received upon completion.

Participants were provided a consent form that outlines their rights. Specifically, participants were told that they were not provided compensation beyond course credit or be considered an employee of the university, that their data would be kept anonymous, and that all identifying information would be deleted upon credit was granted. Additionally, participants were informed that each question would require an answer, but also allow them to express if they were uncomfortable with answering the question to skip it.

After providing consent, participants will be presented the questionnaires in a specified order. First, the BDI-II will be completed. This is followed by an open-ended question regarding participant beliefs about the causes of depression. Next, to reduce order effect bias participants will be presented a description of each treatment in a random order by the online program. They are to rate how strongly they would prefer one treatment over another and then indicate a final choice of psychotherapy. Lastly, the participants will complete the RFD questionnaire. On completion of the final measure, participants will fill out demographic data and be provided a short debriefing form that will explain the nature of the study, provide contact information of the researchers, and have an acknowledgement of thanks.

## Chapter 5

### Results

#### 5.1 Characteristics of the Reasons for Depression Questionnaire

Pearson two-tailed correlations of the subscales of the RFD were all positively and significantly correlated at least the  $p < .05$  level. Correlations ranged from .47-.84 (see table 2). Pearson correlations were also run between the RFD and the BDI-II. Depression severity was significantly and positively correlated with 6 of the 9 original factors of the RFD (see Table 3). The scores ranged from .14-.33 and indicated that those that reported higher depressive symptomology also tended to endorse, in order of strength, characterological, achievement, intimacy, existentialism, biological, and interpersonal conflict reasons for depression.

Table 2

*Reasons for Depression Questionnaire*

Belief Factors	1	2	3	4	5	6	7	8	9
1. Existential	-								
2. Characterological	.74**	-							
3. InterConflict	.77**	.70**	-						
4. Intimacy	.78**	.74**	.84**	-					
5. Achievement	.80**	.68**	.70**	.72**	-				
6. Childhood	.67**	.57**	.72**	.69**	.57**	-			
7. Relationship	.61**	.59**	.70**	.64**	.54**	.79**	-		
8. Physical	.63**	.58**	.58**	.58**	.63**	.50**	.48**	-	
9. Biological	.64**	.74**	.69**	.62**	.54**	.61**	.62**	.47**	-

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 3

*RFD Correlations with Depression*

	Depression Severity (BDI-II)
Characterological	.31**
Existential	.19**
Achievement	.29**
Intimacy	.23**
Biological	.20**
Physical	.14
Interpersonal Conflict	.14
Relationship	-.03
Childhood	-.02

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## 5.2 Preferences for Types of Psychotherapy

The first hypothesis tested was that at least one type of psychotherapy would be chosen significantly more often than other options. This hypothesis was tested by running a  $\chi^2$  goodness of fit test. Results indicate that at least one type of psychotherapy was preferred to the others ( $\chi^2(3, n=209)=24.36, p<.00$ ). Both cognitive and problem-solving therapy were chosen the most with equal frequency ( $n=70$ ), followed by behavioral activation therapy ( $n=37$ ) and interpersonal therapy ( $n=32$ ). Post-hoc analyses with a Bonferroni's adjustment between each of these choices indicate that both cognitive and problem-solving therapies were chosen significantly more than behavioral activation therapy ( $\chi^2(1, n=107)=9.58, p=.002$ ) and interpersonal therapy ( $\chi^2(1, n=102)=13.42, p<.001$ ). Behavioral activation therapy and interpersonal therapy were not chosen at significantly different rates ( $\chi^2(1, n=69)=.24, p=.624$ ) and cognitive and problem-solving therapy were not compared because they were equally preferred (see Table 4).

Table 4

*Observed Preferences of Treatment*

	Observed N	Expected N	Residual
Behavioral Activation Therapy	37	52.3	-15.3
Cognitive Therapy	70	52.3	17.8* <sup>†</sup>
Interpersonal Therapy	32	52.3	-20.3
Problem Solving Therapy	70	52.3	17.8* <sup>†</sup>
Total	209		

Overall:  $\chi^2(3, N=209)=24.36, p<.001$

\* Over behavioral activation therapy  $\chi^2(1, n=107)=9.58, p=.002$

<sup>†</sup> Over interpersonal therapy  $\chi^2(1, n=102)=13.42, p<.001$

To ensure that the results were not influenced by demographic factors, a  $\chi^2$  test of independence was run between variables of age, sex, race, ethnicity, or academic rank and treatment preferences. No significant differences were noted between demographic variables and preferred treatment.

### 5.3 Beliefs About the Causes of Depression

The second hypothesis assessed whether or not at least one treatment choice was related to endorsing higher scores on one or more etiological beliefs about depression. To test this hypothesis, a one-way MANOVA with 4 independent variables (i.e. choice of psychotherapy) and 9 dependent variables (i.e. the factors of the RFD) was conducted. To conduct this analysis a number of assumptions had to be met. According to guidelines presented by Brace, Kemp, and Snelgar (2013) most of these assumptions did not present a concern. The dependent variables were free of outliers, the independent variables were distinct groups, each group had more participants than the number of dependent variables, and the correlations between the factors of the RFD did not exceed .9. However, the data was found to violate the assumption of homogeneity of variance-



covariance matrices. A Box's M value of 216.42 is associated with  $p < .001$  which indicates the dependent variables are not normally distributed within each treatment choice. The test cannot be considered robust and if interpreted, done so with conservative adjustments to significance level (i.e. Pillais' Trace).

Results of the MANOVA fell just above significance level (Pillais' Trace = .191,  $F(27, 594) = 1.5, p = .051$ ). Given the concern that assumptions of the test were not met, the test was considered non-significant. However, a particular trend in the data revealed that those that chose behavioral activation therapy scored higher on every factor of the RFD compared to other treatment choices.

To further analyze this trend, a total of 54 two-tailed t-tests comparing the score of each factor between pairs of treatments were run. The results utilized a conservative Bonferroni adjustment for each pairwise comparison due to the number of tests run. It was found that those that chose behavioral activation therapy endorsed characterological, intimacy, and achievement reasons for depression significantly more than those that chose problem solving therapy. Additionally, those that chose behavioral activation therapy endorsed interpersonal conflict reasons for depression significantly more than all other treatment options (see Table 5).

Table 5

*Mean Scores of The RFD by Preferred Treatment*

	Behavioral Activation Therapy (A) Mean	Cognitive Therapy (B) Mean	Interpersonal Therapy (C) Mean	Problem Solving Therapy (D) Mean
Existential	2.43	2.19	2.01	2.13
Characterological	2.29 <sup>D</sup>	2.01	1.87	1.90
InterConflict	2.64 <sup>BCD</sup>	2.04	1.94	2.00
Intimacy	2.65 <sup>D</sup>	2.32	2.32	2.17
Achievement	2.89 <sup>D</sup>	2.53	2.36	2.36
Childhood	2.41	2.17	1.96	2.14
Relationship	2.15	1.85	1.84	1.93
Physical	2.30	1.99	1.88	2.01
Biological	2.03	1.76	1.65	1.76

Note: Results are based on two-sided t-tests assuming equal variances with significance level .05. For each significant pair, the key of the smaller category appears under the category with larger mean.

It was considered that those that chose behavioral activation therapy may indicate more reasons overall for the causes of depression. This was considered a “complex reasons” factor in previous research, and utilizes the higher-order single factor of the RFD. This factor would be the average sum of all of the 9 subscales of the RFD (Khalsa et al., 2011). Using the complex variable, a one-way ANOVA showed that at least one choice of treatment was associated with a higher mean score of complex reasons for depression ( $F(3,207)=3.25, p=.023$ ). Post hoc comparisons using the Tukey HSD test indicated that the mean score for behavioral activation therapy ( $M=13.04, SD=3.5$ ) was significantly higher than that of interpersonal therapy ( $M=10.62, SD=3.8$ ) and problem-

solving therapy (M=10.92, SD=4.1), but not significantly higher than cognitive therapy (M=11.27, SD=3.45).

## Chapter 6

### Discussion

This study intended to investigate preferences between different types of psychotherapy and the factors that may contribute to them. A number of previous researchers provided evidence that individuals express a preference for general psychotherapy over other interventions for depression (Swift & Callahan, 2013; van Schaik et al., 2004). Despite no previous research assessing preferences for specific psychotherapy treatment systems, other researchers suggest that individuals hold preferences for treatments with certain goals or target concerns (Iselin & Addis, 2003; Meyer & Garcia-Roberts, 2007). Therefore, the current study first posited that individuals would express a preference for a specific type of psychotherapy if descriptions of these treatments provided the particular goals and target problems. Results indicated that of the 4 treatments for depression with strong research support, cognitive and problem-solving therapies were preferred over both behavioral activation and interpersonal therapy interventions for depression.

These preferences could be influenced by a variety of factors. In previous research, recall that demographic variables, personality factors, and previous treatment experiences yielded mixed and often non-replicated results (Lin et al., 2005; Bender, 2000; van Schaik et al., 2004). Within this sample, differences in preference had no association to differences in age, sex, race, or ethnicity across participants. However, the current study also hypothesized that preferences for specific types of psychotherapy would be related to beliefs about the causes of depression. Not only have researchers found that individuals often match the believed cause of a problem to a desired solution

(Ogden & Jubb, 2008), but beliefs in the causes of depression have also been associated with the motivation to take part in treatments that match these beliefs overall (Meyer & Garcia-Roberts, 2007). This study intended to compare the scores of 9 belief factors on the RFD across a person's preferred psychotherapy for depression. Given concerns about the data was not normally distributed, a conservative analysis showed that preferences had only a marginal association to the beliefs about the causes of depression. In other words, for those that preferred one type of psychotherapy one of the 9 scores on the RFD was higher or lower than those that preferred other types.

Analysis into the specific factors of the RFD that were either elevated or diminished yielded interesting results. Overall, the findings did not seem to replicate a congruence effect seen in previous research that linked a cause to a particular target for treatment (Meyer & Garcia-Roberts, 2007). Instead, behavioral activation therapy was associated with higher ratings of each of the 9 factors of the Reasons for Depression questionnaire. This seems to indicate that those who would prefer behavioral activation therapy for depression believe that depression is strongly related to a variety of complex reasons.

Previous literature does not provide background for speculation as to why these specific results were found, but the current work considers a few possibilities within the scope of deductive judgment and study limitations. First and foremost, results should be interpreted from the sample from which they are derived. This sample reflects a medium-sized university of predominately non-depressed individuals within introductory psychology courses. It would be important to replicate this design in a variety of samples before generalizing results with confidence.

For the first hypothesis, it was expected that at least one type of psychotherapy would be preferred over another due to discussed findings in prior work, but the reason cognitive and problem-solving therapy were the top choices could be due to a variety of reasons. It is possible that if the population was given the knowledge about these treatments, they would tend to be more popular than the alternative interpersonal and behavioral activation therapies. The appeal of the top choices may be intrinsic, that is to say due to the specific conceptualization of depression and the techniques used by the treatment. For example, problem solving therapy may be preferred due to its focus on a step-by-step process to follow through with troubling situations. However the appeal within this sample may also be due to bias of both the study design and the participant. Despite any action taken to balance the descriptions of these psychotherapies for content and reading level, they may still utilize language in a way that either appeals or repulses more participants. The qualitative content of the descriptions was not measured, but may be further studied to address this concern.

Within the participant a few different biases may be present. First, they may have had previous knowledge of certain types of psychotherapy and preconceived notions regarding effectiveness. The mere exposure to one treatment over the others may be reflected in their preference. Given the sample was enrolled in intro to psychology courses, the relative bias of professor theoretical orientation may also influence the participants preferred treatment. Even if the participant had no previous exposure to these treatments, there may also be bias given the names of the psychotherapies. Problem-solving therapy, for example, may sound both simple and action oriented compared to the other options and may, therefore, attract participants based on name alone. Even though

these biases draw the focus of participants away from the content of the descriptions to determine their preferred treatment, similar biases would be found in the population as well. Eliminating this bias would be very difficult, but future research comparing preferences between types of psychotherapy may attempt to measure the content to which the participants based their preference.

The second hypothesis was tested and found that those which preferred behavioral activation therapy also tended to endorse higher scores on all of the factors of the RFD questionnaire. Although there may be a variety of interpretations of this finding, the current study posits one possible phenomenon to consider. It is possible that those that chose behavioral activation believe depression to be reflected across all areas of life. Depression is perhaps seen as pervasively impacting all behaviors, even those that are related to interpersonal, physical, cognitive, and other social domains. An individual with a belief in many reasons for depression may view the other types of psychotherapy as too narrow (i.e. cognitive therapy focuses only on thoughts, interpersonal focuses only on relationships and roles in society) or too restrictive (i.e. depression is not just a problem to be solved). Therefore, the alternative behavioral activation may appeal to those that believe depression has a complex etiological basis.

Taking into account study limitations, there are alternative explanations for the finding. Some participants answer questionnaires by using the highest anchor rather than the middle scores. Within the group that chose behavioral activation, this may be due to chance and independent of their preference of psychotherapy; a higher proportion of those with this bias may be present in the group. It may also be phenomenon related to the preference itself; those that preferred behavioral activation also have the proclivity to

answering questions using the highest score. Although this trend was not indicated on the BDI-II within this group, it is possible the RFD is more sensitive to test-taking bias in certain cases.

The questionnaire itself also raised concerns to the validity of findings. The RFD questionnaire's original 9 factors were more interrelated within this sample than previous research, raising concerns about each of them being distinct constructs. Specifically, the range of inter-correlations in this range from .47-.84 which appear overall higher than previous research on undergraduate samples, which show correlations between factors ranging from .20-.60 (Addis et al., 1995). The most considerable overlaps were measured between intimacy and interpersonal conflict causal beliefs and then achievement and existential beliefs. It is possible that these pairs are measuring similar beliefs about the causes of depression; one may be encompassed by the other or they both may be part of an unknown third variable. Although the RFD has been administered to college samples and maintained the 9 factor structure (Addis et al., 1995), it is possible that an unmeasured confound could influence the way the current sample answered the measure. It is also important to consider the generational effect; the measure was developed nearly 20 years ago and over time the distinction between these factors may change.

Lastly, it is important to note that beliefs about the causes of depression may change over time. After the course of successful treatment, for example, clients have been shown embrace the conceptualization of depression from of the treatment they engaged in show less belief in alternative explanations (Leykin, DeRubeis, Shelton, & Amsterdam, 2007). Future study into psychotherapy preferences should attempt to



measure treatment experiences to not only assess their impact on the formation of preferences themselves, but also to track changes in these beliefs with various levels of exposure to treatment.

Despite limitations this study presents foundation for future research on preferences for specific types of psychotherapy and the factors that may influence these preferences. The expressed preferences by the participants in this sample should be replicated in various populations, especially those seeking treatment for depression. Additionally, future research may begin to explore the impact matching a person with their preferred type of psychotherapy may have on the process and outcome of an intervention. Prior researchers that matched a person to their preference for psychotherapy or medication provided evidence that matching leads to reduced dropout rates and improved overall outcomes (Swift & Callahan, 2009), quicker reduction in symptoms (Lin et al., 2005), and improvement in the therapeutic relationship (Iacoviello et al., 2007). Each of these findings could be replicated with specific types of psychotherapy.

Despite equally viable options for treatment, individuals may have respect for the way they want to be treated for depression. Preferences may be partially influenced by the reasons they give for the cause of their symptoms, but is more likely that a complex mix of factors affects the desire for a specific system of psychotherapy. Regardless of the true nature of preferences, individuals can be engaged in the process of treatment and may pay attention to differences in care. Healthcare professionals and researchers alike should continue to consider the impact of the involvement of people within their own mental health management.

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