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ORIGINAL PAPER

The Relationship Between Client Regulatory Focus and Treatment Use Intentions, Attitudes, Credibility Beliefs, and Outcome Expectations for Psychotherapy

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Abstract
Client variables in psychotherapy have been shown to play an important role in psychotherapy, explaining a significant amount of variance in treatment engagement, the therapeutic alliance, and psychotherapy outcomes; however, little is known about how the client variables develop. Specifically, there may be internal characteristics of the client that underlie several client attitudinal variables that play a role in psychotherapy. The purpose of this study was to test one particular client internal characteristic (regulatory focus) as a predictor of the psychotherapy use intentions, attitudes, credibility beliefs, and outcome expectations that clients hold. Participants from a nation-wide sample of adult clients ($N=663$) and a sample of college students ($N=192$) completed measures of regulatory focus, treatment use intentions, attitudes toward psychotherapy, credibility beliefs, and outcome expectations. Taken together, participants' promotion-focus and prevention-focus scores significantly predicted treatment use intentions, attitudes, credibility beliefs, and outcome expectations. Specifically, across both samples a greater promotion-focus was significantly associated with more positive attitudes, credibility beliefs, and expectations. In contrast, a greater prevention-focus was significantly associated with more negative attitudes and not significantly related to credibility beliefs for psychotherapy. These results suggest that researchers and clinicians may want to focus on increasing promotion-focused goals and attitudes in clients in order to increase psychotherapy treatment-seeking and engagement.

Keywords Promotion focus · Prevention focus · Regulatory focus · Client variables · Psychotherapy

Research suggests that client variables play an important role in predicting change in psychotherapy (e.g., Norcross and Lambert 2011). Some of the most studied client variables include attitudes toward psychotherapy, credibility beliefs, and outcome expectations; all of which have been linked to other important psychotherapy process and outcome variables (Constantino et al. 2011; Swift and Greenberg 2015). Although much is known about the impact that these variables can have in psychotherapy, little is known about how these client variables develop. It may be possible that internal characteristics of the client predict the attitudes, expectations, and beliefs that they hold regarding the psychotherapy encounter. By gaining a better understanding of these internal variables, researchers and therapists may be able to better tailor psychotherapy to the needs of their individual clients.

Regulatory Focus

Regulatory focus is one such internal variable that may predict other important client variables in psychotherapy. Specifically, regulatory focus describes how individuals frame or perceive the goals that they work toward. The concept of regulatory focus was first introduced as a way to explain some of the hedonic principles underlying motivation; namely, why individuals approach pleasure and avoid pain (Higgins 1997). Unlike preceding models of motivation, regulatory focus theory suggested that individuals may utilize various strategies to achieve different goals, or end-states. Both strategies and end-states are therefore used to differentiate between two main types of individual self-regulation: promotion focus and prevention focus.

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The first type, promotion focus, is characterized by using an approach strategy to achieve positive outcomes, such as accomplishments or personal growth (Higgins 1997). In other words, promotion focused goals and strategies entail a motivation to achieve a more positive state. The second type, prevention focus, is characterized by employing an avoidance strategy to circumvent negative outcomes. Thus, prevention focused goals and strategies can be described as a motivation to avoid a negative state. Consider, for example, two individuals seeking psychotherapy for depression symptoms. A client with a promotion focus may seek psychotherapy as an opportunity to enhance happiness and life satisfaction. When asked about goals, this client may state "I want to be happy again." In contrast, a client with a prevention focus may seek psychotherapy in order to avoid or stop experiencing sadness associated with the disorder. This client might phrase a therapy goal as "I don't want to be sad all of the time."

Although both of these strategies may be used to successfully achieve goals, they may differentially affect other outcomes such as job functioning and mental health. For example, one meta-analysis found that regulatory focus was associated with both work satisfaction and performance: these variables were positively associated with greater promotion focus, while greater prevention focus was negatively or not associated (Gorman et al. 2012). Regarding mental health, meta-analytic results (Gorman et al. 2012) indicated that level of promotion focus is negatively associated with anxiety and neuroticism, and positively associated with positive affect, self-esteem, and optimism. In contrast, level of prevention focus was positively associated with anxiety, negative affect, and neuroticism, and negatively associated with self-esteem.

Results from another study indicate that individuals with a greater prevention focus may be at greater risk for experiencing depression symptoms compared to those with a promotion focus (Strauman 2002). Neuroimaging research found a similar link between regulatory focus and mental health (Klenk et al. 2011). Compared to healthy controls, those with major depressive disorder (MDD) and comorbid MDD and generalized anxiety disorder had less activity in neuro-correlates of the promotion system (left orbital prefrontal cortex; OPFC) but more prevention system activity (right OPFC; Klenk et al. 2011). Taken together, findings from self-report and neuroimaging studies suggest that promotion focus is linked to greater mental health outcomes, whereas prevention focus is linked to less positive outcomes.

This pattern of findings may be explained by experiential avoidance, a transtheoretical and transdiagostic process in which individuals engage in processes or behaviors to minimize participation in unpleasant experiences (e.g., negative emotions; Hayes et al. 1996). All strategies employed—including the establishment of specific goals—to avoid these experiences are considered forms of experiential avoidance. Thus, setting prevention focused goals (i.e., avoiding negative outcomes) may be one form of experiential avoidance, which is in turn an important contributor to psychopathology and psychotherapy treatment success (Hayes et al. 1996). Therefore, motivations for engaging in psychotherapy may be an important contributor to psychotherapy process variables and treatment outcomes.

Regulatory Focus in Psychotherapy

Although a large body of research exists examining the impacts of self-regulation foci in general, few have investigated the role of regulatory focus in psychotherapy. Wollburg and Braukhaus (2010) found that depressed inpatients who reported only promotion-focused treatment goals (approach group) reported slightly more gains in depressive symptoms compared to those who reported one or more prevention-focused treatment goal (avoid group). Thus, greater promotion focus and lower prevention focus may be associated with greater depression treatment outcomes, respectively. This pattern may have occurred given that depression symptoms are associated with less promotion focus and greater prevention focus (Klenk et al. 2011; Strauman 2002) compared to controls, and successful treatment may have shifted successful clients' regulatory focus to resemble healthy controls. In line with this interpretation, Strauman et al. (2016) found that depressed participants who engaged in a promotion-focused intervention reported greater reductions in depression symptoms. Alternatively, preliminary findings suggest promotion focus motivations may enhance engagement in treatment (Katz et al. 2016), which may have promoted treatment success. However, given the particular sample of clients, it is unknown if findings generalize to other diagnoses, treatment settings, or treatments.

Additionally, regulatory focus may play a role in matching clients to specific treatments to enhance treatment outcomes (Eddington et al. 2015). Equal gains were observed among depressed clients who received cognitive behavioral therapy (CBT) and self-system therapy (SST), which targets self-regulation. However, clients with a low promotion focus who received SST reported greater treatment gains than those with a low promotion focus who received CBT. Clients with a high prevention focus who received CBT, on the other hand, reported greater gains than those with a high prevention focus who received SST (Eddington et al. 2015). Thus, treatment success may depend in part on how well that treatment fits the client's regulatory focus, although little is known about whether the results would apply to other diagnoses (e.g., anxiety) differentially affected by regulatory focus (Strauman et al. 2016).

In addition to optimizing psychotherapy outcomes and matching clients to psychotherapies, regulatory focus may

also play an important role in treatment engagement (Katz et al. 2016). Specifically, those who were prompted to think about a negative belief and received a promotion-focused intervention spent significantly more time engaged in the assigned therapeutic activities targeting the original negative belief compared to participants who received in the control or prevention-focused intervention groups. These results suggest that facilitating promotion focused goals may enhance engagement in therapeutic activities; however, the study was conducted with a non-clinical sample in an experimental setting.

Taken together, these studies highlight the potential role of regulatory focus in some aspects of psychotherapy (Eddington et al. 2015; Katz et al. 2016; Strauman et al. 2016; Wollburg and Braukhaus 2010), although these studies are limited to examining this association in the context of psychotherapy outcomes and psychotherapy engagement. However, regulatory focus may contribute to other important aspects associated with treatment-seeking and psychotherapy outcomes—including attitudes toward psychotherapy, credibility beliefs, outcome expectations—that have not been examined. Specifically, individuals with promotion focused motivations for seeking psychotherapy treatment may be more likely than individuals with prevention focused motivations to believe that treatment is effective in helping individuals achieve treatment goals (positive attitudes), that the clinician may help them achieve those goals (credibility beliefs), that they will be able to achieve their own goals (outcome expectations), and consequently seek treatment. Examining the relationships between regulatory focus and these factors is an important consideration given that these process variables are associated with psychotherapy outcomes (Constantino et al. 2011; Swift and Greenberg 2015), and thus represent one strategy by which clinicians can tailor treatment to fit individual client characteristics.

Current Study

In summary, regulatory focus theory suggests that people differ in their motivations to achieve their personal goals (Higgins 1997), and preliminary findings suggest regulatory focus may play an important role in optimizing psychotherapy outcomes (Wollburg and Braukhaus 2010), matching clients to treatments (Eddington et al. 2015), and facilitating treatment engagement (Katz et al. 2016). However, the relationship between regulatory focus and other important aspects of psychotherapy process associated with outcomes remain unexplored, including client attitudes toward psychotherapy, credibility beliefs, and psychotherapy outcome expectations (Constantino et al. 2011; Swift and Greenberg 2015).

Thus, we aimed to test whether client regulatory focus is linked to other predictors of psychotherapy processes and outcomes, including client attitudes toward psychotherapy, credibility beliefs, and outcome expectations. The present study further builds upon existing literature (Eddington et al. 2015; Katz et al. 2016; Strauman et al. 2016; Wollburg and Braukhaus 2010) by surveying adults across the United States (Sample 1) and undergraduate students (Sample 2). Whereas previous studies examined regulatory focus and psychotherapy factors in depressed (Eddington et al. 2015; Wollburg and Braukhaus 2010) and non-clinical (Katz et al. 2016) samples, we instead included individuals from both non-clinical and clinical samples while accounting for previous psychotherapy use. This consideration is important given that regulatory focus use may differ between non-clinical and clinical samples (Klenk et al. 2011) and prevention focused motivation is one type of experiential avoidance that also contributes to psychopathology and treatment success across a range of diagnoses (Hayes et al. 1996). Although the links between regulatory focus and psychotherapy attitudes, credibility beliefs, and outcome expectations remain untested, a greater promotion focused motivation and a lower prevention focused motivation are associated with other positive outcomes (e.g., work satisfaction and performance, self-esteem, overall mental health; Gorman et al. 2012; Strauman 2002). Thus, we expected a similar pattern of results: individuals with promotion focused motivations would be more likely to seek treatment, believe treatment is effective for helping others achieve their goals (psychotherapy attitudes), that clinicians can help them achieve their goals (credibility beliefs), and that they could achieve their own psychotherapy goals (outcome expectations). Whereas we expected positive associations between promotion focus and these variables, we expected negative associations between prevention focus and these variables.

Method

Participants

Two samples were collected for this study. Sample 1 included 663 individuals recruited through Amazon's MTurk. For this sample, MTurk workers had to be adults ($M = 38.85$ years old, $SD = 12.47$, ranging from 18 to 80 years old), reside in the U.S., be experienced (i.e., had completed at least 100 HITs on MTurk), and be reliable (i.e., had at least a 95% acceptance rate for their work) to participate. Participants self-identified as female (64.9%), male (34.7%), and non-binary (0.5%). Additionally, participants also identified as White/Caucasian (77.8%), Black/African American (9.4%), Asian American (6.6%), Hispanic/Latin(x) American (5.4%), and American Indian (0.9%). Nearly half had reported receiving psychotherapy (52.2%).

Sample 2 included 192 students recruited through a psychology department subject pool ($M = 21.59$ years old, SD = 6.11, ranging from 18 to 56 years old). Participants self-identified as female (78.6%), male (20.8%), and non-binary (0.5%). Participants also identified as White/Caucasian (81.1%), Hispanic/Latin(x) American (13.7%), Asian American (4.7%), and Black/African American (0.5%). Participants were primarily in their first (39.6%), second (29.7%), or third (20.3%) year of pursuing their undergraduate degree; 7.8% were psychology majors. Less than half of the sample reported receiving psychotherapy (47.4%).

Procedure

This study was advertised on MTurk (Sample 1) and a psychology department research subject pool (Sample 2) as a survey of attitudes and opinions about psychotherapy. Eligible participants were directed to an online informed consent page. After providing informed consent, participants were asked to share basic demographic information and psychotherapy use history. Participants were then asked to complete measures of regulatory focus, treatment use intentions, attitudes toward psychotherapy, and credibility/expectancy beliefs. Embedded throughout the survey were attention check questions (e.g., "1 + 1 ="). At the end of the survey, participants were provided debriefing information about study goals. MTurk participants were paid $0.50 for participating; student participants were granted research credit for their psychology courses. The corresponding author's Institutional Review Board approved this study, which was conducted in compliance with the American Psychological Association's (APA) Ethics Code (APA 2017).

Measures

Credibility/Expectancy Questionnaire

The six-item Credibility/Expectancy Questionnaire (CEQ; Devilly and Borkovec 2000) was used to measure clients' credibility beliefs and outcome expectations for psychotherapy. Each of the two subscales of the measure includes three items. On the original measure, responses for four of the six items are provided on a 9-point Likert scale, while responses to the remaining two items are offered in terms of percentages (0–100%). Given that two separate scaling methods are used, Devilly and Borkovec (2000) suggest that researchers explore alternative scaling methods. For this study, we adopted a previously reported method (Swift et al. 2018) of using a 0–10 scale for Likert questions and converting responses on the percentage questions also to a 0–10 scale (i.e., 0% = 0, 10% = 1, 20% =2, and so on). Subscale scores can therefore range from 0 to 30. Higher scores indicate higher credibility beliefs and outcome expectations. Devilly and Borkovec report an adequate factor structure, test–retest reliability, predictive validity, and internal consistency for the measure. Internal consistency was adequate for the credibility scale (Sample 1 $\alpha = 0.87$; Sample 2 $\alpha = 0.69$) and expectancy scale (Sample 1 $\alpha = 0.89$; Sample 2 $\alpha = 0.85$).

Intentions to Use Psychotherapy

Three items assessing intentions to use psychotherapy (Gallo et al. 2015) were rated on a 5-point Likert scale, ranging from 1 (very unlikely) to 5 (very likely). Total scores range from 3 to 15; higher scores indicate stronger intentions to use psychotherapy. Although psychometric properties for these three items have not been reported, we found adequate internal consistency (Sample 1$\alpha = 0.75$; Sample 2 $\alpha = 0.70$) in the current study.

Inventory of Attitudes Toward Seeking Mental Health Services

The 24-item inventory of attitudes toward seeking mental health services (IASMHS; Mackenzie et al. 2004) was used to assess general attitudes toward psychotherapy use. Items are scored on a 5-point Likert scale, ranging from 0 (disagree) to 4 (agree). Total scores can range from 0 to 96. Higher scores indicate more positive attitudes. Adequate convergent validity, predictive validity, and test–retest reliability have been reported for this measure (Mackenzie et al. 2004). The internal consistency was good (Sample 1 $\alpha = 0.90$; Sample 2 $\alpha = 0.86$).

General Regulatory Focus Measure

The 18-item general regulatory focus measure (GRFM; Lockwood et al. 2002) was used to measure chronic regulatory focus. This measure includes two nine-item subscales: promotion and prevention. Each item is rated on a 9-point Likert scale (1 = *Not at all true of me* to 9 = *Very true of me*). Scores for each subscale can range from 9 to 81. Higher scores indicate a greater propensity for a promotion or prevention focus. Lockwood et al.'s (2002) original measure included four questions that asked participants to think about their academic goals and ambitions. Given that Sample 1 was recruited from the general population, the words "academic" and "school" were replaced with the word "life." Adequate factor structure, test–retest reliability, convergent/divergent validity, and predictive validity for this measure have been reported (Haws et al. 2010; Lockwood et al. 2002). In this study, the internal consistency for the promotion (Sample 1 $\alpha = 0.94$; Sample 2 $\alpha = 0.88$) and prevention scales (Sample 1 $\alpha = 0.89$; Sample 2 $\alpha = 0.79$) were similar.

Results

Table 1 (left panel) displays descriptive statistics and correlations for the MTurk sample. Four multiple regression analyses (one for each outcome variable) were conducted with GRFM-promotion and GRFM-Prevention scores entered as predictors and previous psychotherapy use (no = 0, yes = 1) included as a covariate. Results can be found in Table 2 (left panel). For intentions, the overall model was significant, explaining 15% of the variance in intentions. Both GRFM-promotion and GRFM-prevention were found to uniquely explain variance in intentions after accounting for previous psychotherapy use, suggesting both motivations to achieve positive goals (promotion focus) and prevent negative outcomes (prevention focus) may facilitate treatment seeking. For attitudes, the model was significant, explaining 13% of the variance in attitudes. Both GRFM-promotion and GRFM-prevention uniquely explained variance in attitudes after accounting for previous psychotherapy use. For credibility beliefs, the model was significant, explaining 12% of the variance in credibility beliefs. GRFM-promotion significantly predicted credibility beliefs after accounting for previous

Table 1 Means, standard deviations, and correlations for the nation-wide sample of adults (Sample 1) and sample of undergraduate students (Sample 2)

	Means (SD) and correlations					
	National sample of adults			Undergraduate students		
	Promotion	Prevention	Means (SD)	Promotion	Prevention	Means (SD)
Promotion			57.89 (14.88)			67.06 (10.27)
Prevention	−0.06		46.02 (15.85)	0.12		54.23 (12.48)
Therapy use	−0.03	0.11*	–	−0.06	0.19*	–
Intentions	0.18**	0.15**	10.24 (3.04)	0.11	0.04	10.60 (2.78)
Attitudes	0.17**	−0.16**	61.73 (16.39)	0.21*	−0.15*	58.30 (14.78)
Credibility beliefs	0.32**	0.00	26.40 (9.07)	0.18*	0.07	21.82 (5.44)
Outcome expectations	0.34**	−0.05	11.04 (4.81)	0.28**	−0.13	18.56 (6.01)

*$p < .05$; **$p < .001$

Table 2 Regression results for the nation-wide sample of adults (Sample 1) and sample of undergraduate students (Sample 2)

	National sample of adults			Undergraduate students		
	β	t	sr^2_{unique}	β	t	sr^2 unique
Intentions						
Promotion	0.20	5.39**	0.04	0.13	1.81	0.02
Prevention	0.13	3.50**	0.02	−0.02	0.33	0.00
Therapy use	0.30	8.20**	0.09	0.24	3.32**	0.06
Attitudes						
Promotion	0.17	4.59**	0.03	0.26	3.79**	0.06
Prevention	−0.17	4.70**	0.03	−0.24	3.43**	0.05
Therapy use	0.28	7.59**	0.08	0.29	4.19**	0.08
Credibility beliefs						
Promotion	0.32	8.59**	0.10	0.19	2.64*	0.03
Prevention	0.00	0.11	0.00	0.01	0.15	0.00
Therapy use	0.16	4.44**	0.03	0.19	2.66*	0.04
Outcome expectations						
Promotion	0.34	9.10**	0.11	0.29	4.21**	0.08
Prevention	−0.04	0.97	0.00	−0.15	2.17*	0.02
Therapy use	0.04	1.05	0.00	−0.05	0.67	0.00

For regression analyses, intentions (national: $R = .38$, $F(3, 658) = 36.99$, $p < .001$; undergraduate: $R = .26$, $F(3, 190) = 4.55$, $p < .01$), attitudes (national: $R = .36$, $F(3, 658) = 31.51$, $p < .001$; undergraduate: $R = .40$, $F(3, 190) = 11.49$, $p < .001$), credibility beliefs (national: $R = .35$, $F(3, 658) = 30.55$, $p < .001$; undergraduate: $R = .26$, $F(3, 190) = 4.62$, $p < .01$), and outcome expectations (national: $R = .34$, $F(3, 658) = 28.55$, $p < .001$; undergraduate: $R = .33$, $F(3, 190) = 7.40$, $p < .001$) were separately modeled in each sample

*$p < .05$; **$p < .001$

psychotherapy use; GRFM-prevention did not. Last, the outcome expectations model was also significant, explaining 12% of the variance in expectations. Again, although GRFM-promotion significantly predicted expectations after accounting for previous psychotherapy use, GRFM-prevention did not. In summary, for Sample 1, higher promotion focus and higher prevention focus was associated with higher intentions to use psychotherapy, higher promotion focus and lower prevention focus was associated with more positive attitudes, and higher promotion focus was linked to stronger credibility beliefs and outcome expectations. Of note, similar patterns of results were found when analyzing the data separately for those with versus without experience receiving psychotherapy.

Table 1 (right panel) displays the means, standard deviations, and correlations for the university subject pool sample. The same analytic strategy was used for this sample. Results can be found in Table 2 (right panel). For intentions, the overall model was significant, explaining 7% of the variance in intentions. Neither GRFM-promotion nor GRFM-prevention uniquely explained variance in intentions after accounting for previous psychotherapy use. For attitudes, the model was significant, explaining 16% of the variance in attitudes. Both GRFM-promotion and GRFM-prevention uniquely explained variance in attitudes after accounting for previous psychotherapy use. For credibility beliefs, the model was significant, explaining 7% of variance in credibility beliefs. Although GRFM-promotion was found to significantly predict credibility beliefs after accounting for psychotherapy history, GRFM-prevention was not. Last, the outcome expectations model was also significant, explaining 11% of variance in expectations. Here, both GRFM-promotion and GRFM-prevention significantly predicted expectations after accounting for psychotherapy history. In summary, for Sample 2, higher promotion focus and lower prevention focus was associated with greater positive attitudes and outcome expectations; higher promotion focus was associated with stronger credibility beliefs. Again, similar patterns of findings were found when analyzing the data separately for those with versus without experience receiving psychotherapy, except that for non-clients higher promotion was significantly associated with higher intentions and prevention was not significantly associated with expectations and for clients neither promotion nor prevention were associated with expectations. However, these non-significant findings may be due to lower power when splitting the sample.

Discussion

This study examined the link between clients' regulatory focus and psychotherapy use intentions, attitudes, credibility beliefs, and outcome expectations. Clients' promotion focus and prevention focus significantly predicted treatment use intentions, attitudes, credibility beliefs, and outcome expectations. Regulatory focus explained 5% (predicting treatment use intentions) to 10% (predicting outcome expectations) of variance in the dependent variables examined. Although these effect sizes are small, they are meaningful when considering the many factors that may contribute to clients' attitudes and beliefs toward psychotherapy and are consistent with findings from other areas of psychotherapy research (Lambert 2013; Wampold and Imel 2015).

In examining the relative contributions of regulatory focus types, we found that a higher level of promotion focus was associated with more positive treatment use intentions, attitudes toward psychotherapy, credibility beliefs, and outcome expectations. This finding was consistent with our hypotheses and previous research. For example, Gorman et al. (2012) found that greater promotion focus was associated with positive mental health variables, such as positive affect, self-esteem, optimism, and less anxiety and neuroticism. In addition, Katz et al. (2016) found that participants in a promotion focused intervention displayed a higher level of treatment engagement. Taken together, these findings suggest that an individual's desire to achieve positive outcomes (e.g., happiness, optimism, satisfaction with life, general well-being) is tied to their beliefs about the potential success of psychotherapy as a treatment option.

Interestingly, a higher level of prevention focus was associated with more positive treatment use intentions in the national sample and more negative outcome expectations in the undergraduate sample, but was not associated with credibility beliefs in either sample. The fact that promotion focused intentions played a stronger role overall in explaining variance in these variables fits with previous research. For example, Wollburg and Braukhaus (2010) and Katz et al. (2016) identified positive outcomes associated with promotion and approach groups, but they found that prevention and avoidance groups were not associated with treatment outcomes. These findings suggest that desires to avoid or remove problematic mental health states (e.g., symptoms, distress) may motivate individuals to seek treatment in some samples, but may not produce attitudes and beliefs that may lead to treatment engagement or success. However, it is unclear why minor differences emerged between samples. It may be that for undergraduates, other setting variables (such as access to free or low-cost services on campus) better predicts treatment use intentions than individual prevention focus. Additionally, prevention focus may be associated with negative credibility beliefs only among samples that are less likely to report that therapy will address their concerns since this link was significant only for undergraduates, who also reported more negative credibility beliefs. Future research exploring the link between prevention focus and

process variables in diverse samples may shed light on these discrepancies.

Although higher levels of promotion focused intentions were associated with more positive attitudes toward psychotherapy, higher levels of prevention focused intentions were associated with more negative attitudes toward psychotherapy. In fact, the negative correlation that was found between prevention focus scores and attitudes was stronger than the positive correlation that was observed between promotion focus scores and attitudes. Perhaps, for this sample of participants, psychotherapy was seen as a means that can help people achieve positive goals in their life, but not as something that can actually reduce mental health problems. It is also possible that the individuals who tend to be driven by avoiding negative states, tend to be more pessimistic in general about their ability to effectively do that (Gorman et al. 2012).

Limitations

A number of limitations are present within the current study. First, this study used a cross-sectional design. Given the nature of the design, the causal relationship between regulatory focus and process variables (e.g., treatment use intentions) cannot be determined. Second, self-report measures were used. Adequate psychometric properties have been reported for these measures; however, data collected through self-report instruments do not always reflect actual attitudes and behaviors. Although the present study did not include a measure of response bias, future studies may consider including one when using self-report methods.

Third, the first sample was recruited using an online recruitment portal, MTurk, to obtain a nation-wide sample of clients. Given the online nature of the study, however, it is difficult to verify participant characteristics or engagement while completing the measures. We did utilize a number of cognizant responding questions throughout the survey to help address this limitation. Relatedly, it is unclear whether individuals who choose to participate in online paid research through MTurk actually represent the general population. Despite these limitations, the overall pattern of results obtained from the MTurk and undergraduate samples were similar. It should be noted that the likelihood of Type I error may have increased as a result of using two samples. However, both sample sizes were relatively large, which minimizes this risk.

Fourth, both samples were predominantly White/Caucasian, limiting the degree to which results generalize to more diverse samples. Last, we did not account for health insurance coverage nor the length of, type of, frequency of engaging in, or satisfaction with psychotherapy. Although it is unclear how these factors may influence the link between regulatory focus and psychotherapy processes, additional research exploring these associations may shed light on how clinicians can tailor treatment strategies to fit clients' regulatory focus and client characteristics.

Clinical Implications and Future Research Directions

Despite these limitations, several clinical implications and future research directions exist. In this study, greater client promotion focus was significantly associated with positive treatment use intentions, attitudes, credibility beliefs, and outcome expectations. Although individuals are thought to have a general regulatory focus preference, interventions may encourage promotion focused or prevention focused states (Katz et al. 2016). Efforts to increase clients' and/or potential clients' promotion focus motivations may also have a positive impact in psychotherapy. For example, advertisements about psychotherapy may be most effective if they include promotion focused messaging highlighting positive experiences that psychotherapy can lead to. Additionally, therapists can assist clients in phrasing their goals as potential gains rather than as symptom reduction or distress relief. Utilizing promotion focused strategies may be particularly useful when a set-back has occurred in psychotherapy. Again, rather than focus on the negatives that clients would like to avoid, therapists can help their clients think of the potential positives and problem solve methods for achieving those desired end-states.

To date, few studies have examined the role of client regulatory focus in psychotherapy. More studies are needed before the above mentioned clinical implications are put into practice. Future research should develop and evaluate interventions using promotion focused messages to improve psychotherapy attitudes and outcomes. Since prevention focused motivations may reflect a larger tendency to avoid negative experiences, researchers may consider previously developed strategies targeting experiential avoidance (Hayes et al. 1996). Moreover, researchers and clinicians working with clients exhibiting experiential avoidance may target how clients frame treatment goals and monitor whether promotion focused motivations influence other process variables. In addition, future studies can test the relationship between client regulatory focus and other psychotherapy processes and outcomes (e.g., therapeutic alliance, treatment attrition, motivation for change). Longitudinal and experimental research would also be useful in identifying the sequential nature and causal relationships between these variables, respectively. Such future research may lead to methods for tailoring psychotherapy to individual clients.

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