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Shaping Mental Health Help-Seeking in Asian Americans: An Experimental Study on Individualism, Collectivism, and Promotion-Prevention Messaging

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Asian Americans remain the least likely to seek mental health services among racial-ethnic groups in the United States, but studies suggest that individuals may be receptive to health messages when they align with their self-construal and regulatory focus. This study investigated the effects of (1) an independent-versus-interdependent sense of self, (2) self-versus-others messaging, and (3) promotion-versus-prevention messaging, on outcomes related to (1) mental health seeking attitudes, (2) mental health seeking intentions, and (3) mental health treatment credibility. Results from a 2 × 2 × 2 MANOVA analysis did not support our hypothesized three-way interaction. Future research could enhance priming manipulation tasks, explore additional access barriers (e.g., cognitive style, affective ideals, etc.), and greater community-engaged research with more diverse Asian American populations.

Keywords: Asian Americans, mental health, treatment seeking, cultural values, health messages, regulatory focus

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The Help-Seeking Gap: Self-Construal and Messaging Effects on Mental Health Help-Seeking Attitudes, Intentions, and Treatment Credibility

Data collected from a national survey demonstrated that Asian Americans have a 23.5% overall lifetime prevalence of developing a psychiatric disorder (Alvarez, 2019). Recent data indicates a significant increase in suicide rates among Asian American and Pacific Island (AAPI) youth, with AAPI females aged 10–24 now experiencing higher rates (5.03, per 100,000) than their Black and Hispanic peers, while AAPI males in the same age group have a rate of 10.14 per 100,000, which is lower than most other racial groups (Hua et al., 2024). Despite this, Asian Americans individuals consistently report lower rates of psychological distress and mental health service utilization than other racial and ethnic groups (McGarity-Palmer et al., 2023; SAMHSA, 2019), with only 8.6% seeking any mental health services compared to 17.9% of the general population (Abe-Kim et al., 2007). Rather than formal psychotherapy, Asian Americans individuals may often turn to alternative support systems. Data from the Chinese American Epidemiology Study (CAPES) showed that of Asian American individuals who reported mental health difficulties, fewer than 6% sought mental health professionals, while others turned to medical doctors (4%) or religious figures such as ministers or priests (8%) (Young, 1998).

Moreover, Asian American adolescents face higher levels of peer discrimination than other ethnic minority groups (Greene et al., 2006), and discrimination broadly has been linked to depression, suicidal ideation, DSM-IV disorders, and underutilization of mental health services even after controlling for sociodemographic and acculturative factors (Burgess et al., 2008; Hwang & Goto, 2008; Lee et al., 2009; Yip et al., 2008). Systemic barriers such as culturally inappropriate services and institutional mistrust, compounded by the minimizing effects of the model minority myth, may further deter help-seeking among this population (Lee, 2003; Sue et al., 2007; Uba, 1982). More recently, periods of heightened stress due to the COVID-19 pandemic triggered an increase in racially motivated discrimination towards Asian American mirroring patterns seen in previous pandemics (Cohn & Cohn, 2018). For instance, President Trump's use of terms like "China virus" and "Wuhan virus" contributed to heightened stigmatization (Gee et al., 2020). Consequently, reporting of anti-Asian hate incidents in the United States rose during COVID-19 pandemic, arguably driven by anti-Asian racism, xenophobia, and the assignment of blame to Asian Americans for the occurrence of the COVID-19 virus (Han et al., 2020; McGarity-Palmer et al., 2023) with nearly 1900 documented cases ranging from verbal abuse to physical assaults (Borja et al., 2020; Dhanani and Franz, 2021).

Cultural Variables Influencing Mental Health Help Seeking Behaviors

Although Asian Americans experience psychological distress, they are less likely to seek formal mental health services than the general population (SAMHSA, 2019), in part due to less favorable attitudes toward Western psychological help (Atkinson et al., 1998). Acculturation has been found to significantly predict these attitudes, highly acculturated individuals report more positive help-seeking attitudes, while those more enculturated to traditional Asian values often view seeking outside help as shameful, emphasizing instead emotional self-control and self-reliance (Atkinson & Gim, 1989; Kim et al., 2001; Sue, 1994). Notably, however, high adherence to Asian cultural values has also been associated with stronger therapeutic alliances and more positive counselor evaluations once in treatment (Kim et al., 2005; Kim & Omizo, 2003).

In all this, it is important to note that the researchers state that the fault may not lie within Asian cultural values or lack of acculturation to mainstream North American culture, but rather within the difference between Asian cultural values and the way psychological services are provided in the United States (Atkinson & Gim, 1989). For instance, European-based psychotherapy's focus on individual experience and emotional expression can conflict with Asian ideals that value emotional control as a healthy coping strategy (Mauss et al., 2010; Sun et al., 2016; Wrenn, 1962). As individuals are more receptive to health messages aligned with their cultural framework and regulatory focus (Uskul et al., 2009), evidence-based practice dictates that services must be adapted to client values and preferences to remain credible and effective (APA Presidential Task Force on Evidence-Based Practice, 2006). From an Asian-centric perspective, this requires deconstructing contemporary assumptions that (1) treat mind, body, and spirit as separate, (2) favor a medical model, and (3) assume Western diagnostic superiority, rather integrating wellness-promoting values like collectivism, family connections, and emotional restraint to provide culturally-responsive care and increase access for Asian Americans (Kim et al., 2001; Millner et al., 2021).

Collectivism, Individualism, and Models of Self

One cross-cultural dimension that may influence the attitudes of Asian Americans towards help-seeking is their individualistic and collectivistic tendencies (Tata & Leong, 1994). Individualism operates on the assumption that loosely linked, independent individuals prioritize personal autonomy, preferences, and rational benefits over social connections or communal values (Oyserman et al., 2002; Triandis, 1995). In contrast, collectivism assumes that individuals are bound by mutual obligations and view themselves as integral parts of closely linked groups. For collectivists, life satisfaction stems from maintaining harmonious relationships, fulfilling shared social roles, and prioritizing collective norms over personal ambitions (Oyserman et al., 2002; Triandis, 1995).

Although typically discussed as stable traits, individualistic and collectivistic orientations can be dynamically primed as state-like expressions through situational factors (e.g., group norm cues) or specific research tasks that activate mental representations as interpretative frames (Bargh & Chartrand, 2000; Oyserman et

al., 2008; Trafimow & Triandis, 2001). Because differences in individualistic and collectivistic values are connected to one's self-model (Zhang & Tsai, 2014) priming collectivism tends to direct attention toward one's public self, while priming individualism emphasizes private self-evaluation (Oyserman & Lee, 2008) Across various priming tasks, Oyserman and Lee (2008) reported small effect sizes on self-construal outcomes, moderate-sized effects on relational outcomes, and moderate-sized effects on social judgment outcomes, social comparison outcomes, or nonsocial judgment outcomes. Importantly, these robust causal effects occur across both Eastern and Western contexts, demonstrating that these cultural orientations are cross-cultural rather than strictly country-specific (Aaker & Lee, 2001; Briley & Wyer, 2001; Oyserman et al., 2008).

Regulatory Forces

Beyond models of the self, individualistic and collectivistic mental representations may also activate different regulatory focus systems, which govern how individuals are motivated in goal formation and decision-making (Heine, 2010; Higgins, 1998; Higgins, 2008). Regulatory focus revolves around motivational principles, such as pain and pleasure, that guide individuals in their decision making in order to achieve their desired outcomes. The theory distinguishes two systems: promotion orientation, which emphasizes growth, achievement, and advancement, and prevention orientation, which prioritizes safety and security (Kurman & Hui, 2011). Promotion-focused individuals are driven by a need for nurturance, aspirations, and the desire to align their actual self with their ideal self (Higgins, 1998; Uskul et al., 2009). In contrast, prevention-focused individuals concentrate on responsibilities and avoiding negative outcomes, aiming to align their actual self with what they ought to be.

The cultural context in which an individual's self-views develop plays a crucial role in shaping self-regulatory orientations (Lee et al., 2000). Specifically, individuals in individualistic cultures tend to define themselves by internal attributes and prioritize independence, favoring promotion-oriented strategies to achieve positive outcomes; conversely, those in collectivistic cultures tend to adopt an interdependent self-view defined by relationships and social harmony, favoring prevention-oriented strategies to avoid negative outcomes (Elliot et al., 2001; Heine et al., 1999; Lee et al., 2000; Lockwood et al., 2005; Markus & Kitayama, 1991; Triandis, 1989; Zhang & Tsai, 2014).

Regulatory Focus and Treatment Seeking

These underlying motivations may directly influence the decision to seek therapy; for instance, a promotion-focused client might pursue psychotherapy to enhance life satisfaction, while a prevention-focused client may seek treatment to avoid or alleviate depressive symptoms (Higgins, 1997; Park et al., 2019). Moreover, regulatory focus has been found to affect important client variables in psychotherapy such as treatment use intentions, credibility beliefs, and outcome expectations. Regulatory focus also significantly affects essential client variables, with higher levels of promotion focus and corresponding positive message valence consistently associated with greater treatment use intentions, credibility beliefs, therapeutic bonds, and overall engagement (Gorman et al., 2012; Katz et al., 2016; Nettelhorst et al., 2019; Park et al., 2019). However, findings regarding prevention focus are more mixed, showing positive treatment intentions in some samples but negative outcome expectations in others, suggesting that additional moderating factors are at play (Park et al., 2019). For instance, an individual's perception of the nature and consequences of therapy (Nettelhorst et al., 2019; 2022) and the alignment between health messages about psychotherapy and one's regulatory focus (Uskul et al., 2009) may further influence treatment intentions and related outcomes.

Current Study

Collectively, these studies suggest that individuals may be more receptive to health messages when they align with their underlying cultural framework and regulatory focus (Uskul et al., 2009). The purpose of this study was to isolate and examine the impact of three independent variables: (1) independent versus interdependent sense of self, (2) self-versus-others orientation messaging, and (3) promotion-versus-prevention emphasis messaging, on four dependent variables: (1) mental health seeking attitudes, (2) mental health seeking intentions, (3) mental health treatment credibility, (4) and treatment outcome expectations.

We hypothesized a three-way interaction between the three independent variables. More specifically, we hypothesized that participants primed with an interdependent self-construal would be more likely to report more favorable ratings of psychotherapy (across all four indices) when presented with a prevention-emphasis, others-oriented therapist evaluative comments about psychotherapy.[1] On the other hand, we hypothesized that participants primed with an individualistic mindset would be more likely to report more favorable ratings of psychotherapy (across all four indices) when presented with a promotion-emphasis, self-oriented therapist evaluative comments about psychotherapy.

Methods

Participants

An a priori power analysis was conducted using the *Superpower* package in R (Team, 2023) to estimate the appropriate sample size for the study. Based on effect sizes reported from previous studies that examined similar constructs (Park et al., 2019) or utilized

[1] The therapist evaluative comments refer to comments on the stimulus that the participants were shown that illustrate "qualitative ratings" given to the fictitious therapist. The methods section and Appendix B provide further details on the nature of these comments.

a similar experimental paradigm (Nettelhorst et al., 2022),[2] we anticipated a small effect size (partial $\eta 2$ = 0.04) for a three-way interaction between the three aforementioned independent variables. This power analysis involved creating a population in which the postulated model is true, and many samples of a specific and constant size are drawn from this population. Each sample was then fitted to the postulated model and parameters were estimated and recorded. The empirical rate of statistical significance was then averaged across all replications to obtain the power estimate. For this study, we sampled 10,000 samples of size N = 200 (n = 25 for each group) were drawn from this population. The estimated empirical power to reject the hypothesis that there would be a statistically significant effect was equal to 80.69%. Thus, we sampled 203 individuals, accounting for 5% attrition due to missing data, to achieve a sufficient sample size to have at least 80% power to detect significant moderate effects of the indirect effects, assuming such moderation effects exist in the population. A total of 203 participants were recruited for this study from Prolific and SONA Systems to complete an online questionnaire. Participants were adults (18 and above) who were identified as first, second, or third generation Asian-Americans. Full demographic characteristics of the sample are presented in Table 1. Following completion of the questionnaires, participants received monetary compensation or course credit through the crowdsourcing platform. The responses were collected through the Qualtrics online survey platform. Researchers obtained IRB approval prior to beginning this experimental process.

Based on the moderate effect size for the SDFF task (Cohen's d = 0.49; Oyserman & Lee, 2008), we estimated a moderate Cohen's f effect size 0.25 for the effects of SDFF on indices related to individualism and collectivism (i.e., self-concept and relationality). With a significance criterion of h = .050, 1–β = .80, the total minimum sample size needed for the moderate priming effect size on each of the manipulation check outcomes mentioned above was estimated to be N = 128. Because we had N = 203 participants, we were sufficiently powered to detect priming effects of the SDFF, assuming such an effect exists in the population.

Procedure

An online questionnaire was distributed to interested participants through Prolific and SONA Systems in the Spring of 2024. Participants were asked to complete an online questionnaire to receive monetary compensation or course credit. Participants were asked to complete the informed consent portion at the beginning of the questionnaire along with a demographics survey.

Next, participants were randomly assigned to one of the following priming conditions: (1) independent self or (2) interdependent self. The priming condition required participants to engage in a thought exercise named the *Similarities and differences*

Table 1. Demographic Information of Participants

Variable		Mean	Median	Mode	SD
Age		31	28	21	11
Variable	**Value**	**N**	**Percentage**		
Gender	Prefer to self-describe	5	2.5%		
	Male	84	41.4%		
	Female	114	56.2%		
Christian Denomination	Catholic	29	14.6%		
	Baptist	4	2.0%		
	Methodist	3	1.5%		
	Presbyterian	14	7.1%		
	Church of Christ	4	2.0%		
	Pentecostal	1	0.5%		
	Non-Denominational	52	26.3%		
	Evangelical	10	5.1%		
	Other	81	40.9%		
History of Professional Mental Health Care	Yes	87	42.9%		
	No	116	57.1%		
Marital Status	Single	97	47.8%		
	Divorced	6	3.0%		
	In Committed Relationship	49	24.1%		
	Married	49	24.1%		
	Widowed	2	1.0%		
	Other	0	0.0%		
Highest Academic Degree Earned	Bachelors	120	59.4%		
	Master's	40	19.8%		
	MBA	8	4.0%		
	J.D. (Law)	1	0.5%		
	M.D. (Medicine)	5	2.5%		
	Ph.D./Ed.D.	15	7.4%		
	Other	13	6.4%		
Race/Ethnicity:	Taiwanese/Taiwanese American	14	6.9%		
	Chinese/Chinese-American	61	30.0%		
	East Indian/Pakistani	24	11.8%		
	Filipino	15	7.4%		
	Japanese/Japanese-American	9	4.4%		
	Korean	37	18.2%		
	Thai/Other Asian	4	2.0%		
	Vietnamese	22	10.8%		
	Other:	17	8.4%		
Immigration Generation	First Generation	64	31.7%		
	Second Generation	121	59.9%		
	Third generation	15	7.4%		
	Other	2	1.0%		
Bilingual	Yes	135	66.5%		
	No	68	33.5%		
Native English Speaker	Yes	168	82.8%		
	No	35	17.2%		

[2] To date, no study has examined a possible three-way interaction between the three independent variables when predicting outcomes related to intentions and attitudes in seeking help as well as perceptions of psychotherapy. Thus, our anticipated three-way effect size was based studies that examined similar constructs or utilized a similar research design. For example, using promotion-versus-prevention regulatory focus scores as a predictor variable in a non-experimental study, Park et al. (2019) reported statistically significant but 'weak' effect sizes, sr^2 = .02 and sr^2 = .03 respectively (Cohen, 1998), when attempting to account for the variance in scores for (1) intentions to use psychotherapy and (2) attitudes towards seeking mental health services. On the other hand, using a similar experimental paradigm as ours, Nettelhorst et al. (2022) reported a statistically significant but small effect size (partial $\eta 2$ = 0.04) for a two-way interaction between the valence of client reviews and type of review when predicting a composite dependent variable composed of measures related to intent in seeking mental health help and expectations about mental health treatment. Thus, we anticipated a small effect size (partial $\eta 2$ = 0.04) for a three-way interaction between our three independent variables to explain scores of our dependent variable composed of (1) intentions in seeking help, (2) attitudes in seeking help, (3) perceived credibility of the treatment and (4) outcome expectations of the hypothetical treatment.

with family and friends task (SDFF; Trafimow et al., 1991). To prime individualism, the participants were given the following instructions: "For the next two minutes, you will not need to write anything. Please think of what makes you different from your family and friends. What do you expect yourself to do?" To prime collectivism, participants were given the following instructions: "Please think of what you have in common with your family and friends. What do they expect you to do?" As a manipulation check, participants completed two measures to assess for differences in self-concept and relationality that is presumed to be affected by the priming task.

Following each priming condition, participants were shown a fictitious case vignette similar to the ones used by Nettelhorst et al. (2019, 2021). Specifically, they were asked to imagine themselves experiencing depression symptoms consistent with DSM-5-TR criteria (Appendix A). Then, they were shown a Healthgrades© screenshot about a fictitious licensed therapist complete with evaluative comments from 50 previous clients (Appendix C). They were randomly assigned to one of four comment variations: (1) promotion-emphasis, self-oriented; (2) promotion-emphasis, others-oriented; (3) prevention-emphasis, self-oriented; or (4) prevention-emphasis, others-oriented (Appendix B).

Following this, participants completed items on mental health seeking attitudes, intentions, treatment credibility, and outcome expectations. The study took approximately 15 minutes and was administered via Qualtrics.

Measures

Manipulation Check

Perceived Social Support

To assess for the influence of the manipulation task, this study utilized the Social Support Questionnaire-Short Form designed by Sarason et al. (1987). Six items were used to measure a respondent's perceived level of social support and included two parts. The first part asked individuals to list individuals whom they could count on for help or support in the manner described (e.g., "Whom can you really count on to distract you from your worries when you feel under stress?"). The second part utilized a 6-point Likert scale ranging from 1 (*very dissatisfied*) to 6 (*very satisfied*) to measure the respondent's satisfaction with their reported level of support. Higher scores indicate a greater level of perceived social support by the participant. The scale demonstrated good internal reliability (Cronbach's $\alpha = 0.90–0.93$) and strong intercorrelations with the original Social Support Questionnaire (SSQ) demonstrating internal reliabilities with the Cronbach α coefficient ranging between; $\alpha = 0.96–0.98$). The original SSQ was found to demonstrate proper external validity, displaying significant positive correlations with the Perceived Social Support (Friends and Family) measure ($r = 0.40$ to 0.59) and the Interpersonal Support Evaluation List ($r = 0.53$ to 0.66; Sarason et al., 1987).

Self-Construal

Furthermore, 28 items from the Self-Construal Scale (SCS) were used to measure the degree of independence versus interdependence in a respondent's self-construal (e.g., "Your happiness is independent from the happiness of your family."). The measure utilizes a 9-point Likert scale with five numbered and labeled points from 1 (*does not describe me at all*) to 5 (*describes me exactly*). The authors allowed participants to specify intermediate answers if they were undecided between the labeled points (i.e., 1.5, 2.5), thereby resulting in a 9-point response scale. For the current study, the researchers utilized a 5-point scale without the option of specific intermediate answers. Higher scores indicate greater interdependence in the respondent's self-construal. In Yang and Vignoles (2020), the scale's global fit indices (RMSEA = .064 (90% CI [.049, .078]), SRMR = .034, CFI = .928.) indicate acceptable model fit – providing support for its latent factor structure.

Dependent Variables

Mental Help-Seeking Intention

Three items from the Mental Help-Seeking Intention Scale (MHSIS) were used to measure respondents' intention to seek help from a mental health professional if they had a mental health concern (e.g., "If I had a mental health concern, I would intend to seek help from a mental health professional." Hammer & Spiker, 2018). The measure uses a Likert-format ranging from *definitely false* to *definitely true*. Higher scores indicate a higher level of mental help-seeking intention. The scale's Cronbach αcoefficient ($\alpha > .87$) indicated that internal reliability was good. Furthermore, the scale demonstrated strong predictive validity with a correct classification rate near 70% (Hammer & Spiker, 2018).

Mental Help Seeking Attitudes

Nine items from the Mental Help-Seeking Attitudes Scale (MHSAS) were used to measure respondents' evaluation of their seeking help from a mental health professional if they had a mental health concern (e.g., "If I had a mental health concern, seeking help from a mental health professional would be…." Hammer & Spiker, 2018). The measure uses a 7-point semantic differential scale. In order to calculate the total score, it is necessary to reverse score items 2, 5, 6, 8, and 9. Higher scores indicate more favorable attitudes toward seeking help from mental health professionals. The scale's Cronbach α coefficient ($\alpha > .92$) indicated that internal reliability was good (Hammer & Spiker, 2018).

Mental Health Treatment Credibility and Outcome Expectation

Six items from the Credibility/Expectancy Questionnaire (CEQ) were used to measure respondents' credibility beliefs and outcome expectations for psychotherapy (e.g., "At this point, how logical does the therapy offered to you seem?" Devilly & Borkovec, 2000). The measure uses a 9-point Likert scale. Higher

Table 2. Manipulation Check: One-Way ANOVA with the Social Support Questionnaire (SSQ) and Self-Construal Scale (SCS)

	Sum of Squares	*df*	Mean Square	*F*	*p*
SSQ					
Between Groups	1.59	1	1.594	1.413	0.23
Within Groups	217.63	193	1.128		
Total	219.22	194			
SCS					
Between Groups	0.08	1	0.08	0.41	0.52
Within Groups	40.13	201	0.20		
Total	40.22	202			

scores indicate higher credibility beliefs and outcome expectations regarding therapeutic treatment. The scale's Cronbach αcoefficients for the credibility scale (Sample 1 α = 0.87; Sample 2 α = 0.69) and expectancy scale (Sample 1 α = 0.89; Sample 2 α = 0.85) indicated good internal reliability (Devilly & Borkovec, 2000). The Credibility Scale is scored by summing the three question responses and dividing the total by three to calculate the average score.

Results

Overview

First, we conducted two one-way ANOVAs as manipulation checks for our priming task. Based on a meta-analysis (Oyserman & Lee, 2008), we expected participants randomly assigned to the independent self-construal priming group to have lower scores on the Social Support Questionnaire and higher scores on the independent self-construal scale compared to participants in the interdependent self-construal priming group. To test our three-way interaction hypothesis, a 2 × 2 × 2 factorial MANOVA was used to analyze the data. The first independent variable was the priming group assigned to participants (i.e., independent or interdependent self-concept). The second independent variable was the focus of the evaluative comments provided by fictitious clients (i.e., self versus others). The third independent variable was the promotion versus prevention emphasis of the therapist evaluative comments (i.e., promotion versus prevention). Scores for (1) mental health seeking attitudes, (2) mental-help seeking intention, (3) treatment outcome expectations, and (4) perceived treatment credibility were combined into a composite dependent variable in the multivariate step of the MANOVA.

Missing Data Patterns and Treatment

The initial sample size that was recruited for this study was 203 participants. At the participant level, a total of 31 participants had 16.66% missing data, and one participant had 33.33% missing data. The remaining participants (n = 170) had no missing data points, meaning that 15.76% of participants had some amount of missing data in their responses. At the variable level, one variable had slightly more than 10% missing data (10.8% missing data for attitude of seeking professional mental health treatment). Two other variables with missing data had less than 5% (4.90% missing data for self-construal and 3.90% missing data for perceived social support). The remaining three variables in the MANOVA had no missing data points. A stochastic imputation procedure was performed on variables with less than or equal to 10% missing data (Sinharay et al., 2001). This imputation technique estimates missing values by generating plausible numbers based upon the distributions and relationships of observed values within the data set and an error term is added to reflect uncertainty in applied datasets. Following this procedure, one imputed dataset was selected to serve as the basis for conducting the statistical analyses.

ANOVA

Prior to conducting the ANOVA, the sample data was examined for outliers, normality of the data (assumption of normality), and spread of data across the different conditions of the study (assumption of homogeneity). The normality of scores was assessed by examining skewness and kurtosis within each condition and the composite dependent variable. Skewness and kurtosis ratios (z-scores) were calculated by dividing their statistics by their respective standard errors. In accordance with established guidelines, values for asymmetry and kurtosis between −2 and +2 were considered acceptable for normal univariate distribution and data was deemed normal if skewness fell between −2 and +2 and kurtosis between −7 and +7 (Byrne, 2010; George & Mallery, 2010; Hair et al., 2010). Identified outliers were assessed utilizing Cook's distance to estimate the influence that each data point had upon the sample. The assumption of homogeneity of variances was tested using Levene's test for each dependent variable separately. If Box's M Test was statistically significant, Pillai's Trace criterion was used to interpret multivariate effects (Tabachnick & Fidell, 2007). If Levene's test was significant, further examination of variance ratios across conditions for each dependent variable was conducted, with transformations applied when necessary.

The two one-way ANOVAs revealed no significant differences between priming conditions based upon participants' responses to the Social Support Questionnaire (SSQ), $F(1, 193) = 1.41$, $p = .234$, $\eta^2 = .0007$, or the Self-Construal Scale (SCS), $F(1, 201) = 0.41$, $p = .522$, $\eta^2 = .002$ (Table 2). As a result, the researchers opted to replace one of the initial independent variables (i.e., priming condition) with the binary self-construal predictor variable, shifting the study to a quasi-experimental design. The researchers accomplished this by dividing the self-construal variable into two groups ("high" and "low") based on the median and categorizing the participants' responses accordingly. Moreover, due to researcher error, the behavioral anchors used in the Credibility/Expectancy Questionnaire (CEQ) for this study deviated from the original design by the authors (Devilly & Borkovec, 2000). This discrepancy may have led to misrepresentation of the questions' wording, potentially compromising the validity of participants' responses on the Expectancy subscale of the CEQ. As a result,

the researchers chose to exclude the Expectancy subscale from the current analyses.

Table 3. Descriptive Statistics of Treatment Credibility, Intentions to Seek Mental Health Treatment and Attitudes towards Mental Health Treatment.

Variable	*N*	Range		Mean	SD	γ1	κ
		Minimum	Maximum				
Credibility	203	2.00	7.00	5.55	0.83	−0.68	1.71
Intentions to Seek MH Treatment	203	1.00	7.00	5.49	1.22	−1.45	3.05
Attitudes towards MH	203	2.67	7.00	5.61	0.97	−0.55	−0.22

MANOVA

The final cell sizes for the 2 × 2 × 2 MANOVA were distributed across the conditions as follows: Interdependent Self Construal, Others-Prevention (n = 22); Collectivism, Others-Promotion (n = 24); Collectivism, Self-Prevention (n = 21); Individualism, Others-Prevention (n = 27); Individualism, Others-Promotion (n = 28); Individualism, Self-Prevention (n = 31); and Individualism, Self-Promotion (n = 16). Similar to an ANOVA test, a MANOVA test includes multiple assumptions that must be investigated to ensure the validity of the findings. In this study, three major assumptions were checked. The first focused on the normality of the data, the second focused on the spread of data across different conditions of the study (i.e., homogeneity), and the third checked for multicollinearity among the dependent variables. Additionally, we examined the dataset for missing data patterns and screened the participants for outliers. Lastly, the homogeneity of variance-covariance matrices was assessed using Box's test for the composite dependent variable. In instances when Box's test was significant, as recommended by Tabachnick and Fidell (2007), Pillai's Trace criterion was used to interpret multivariate effects, rather than Wilk's Lambda statistics.

Normality

After completing the missing data analysis, the sample data were checked for normality across the different conditions of the study. Within this procedure, the data were checked for outliers, skewness, and kurtosis within each of the specific conditions in the study and each dependent variable. A total of 33 univariate outliers were found in the sample with z-scores greater than the absolute value of 3.29 standard deviations. Due to this, a Cook's distance was used to estimate the influence of the outlier data points upon the sample. As Cook's test did not show any significant influence from the participants with outlying scores, their responses were retained. Normality of scores was then examined by assessing skewness and kurtosis within each dependent variable across the experimental conditions. Skewness and kurtosis ratios were calculated by divided skewness and kurtosis errors within each condition and dependent variable. All skewness ratios were less than an absolute value of 1.9, and all kurtosis ratios were less than an absolute value of 5.86. Consistent with the previously established criteria, the data were deemed sufficiently normally distributed to proceed with the MANOVA (Byrne, 2010; Hair et al., 2010).

Homogeneity

Homogeneity of variances was assessed using Levene's test for each dependent variable individually, while homogeneity of variance-covariance matrices was evaluated using Box's test for the four dependent variables collectively. These tests analyze the spread (i.e., variability) of data across different conditions and dependent variables to ensure approximate equality of variances across groups defined by the independent variables. Relatively equal spread in data helps to properly estimate statistical values, while unequal spread can increase the likelihood of committing a statistical error.

Table 3 provides the descriptive statistics for each dependent variable (three in total). Box's test ($F(70, 45897.35) = 2.10, p < .001$) revealed that homogeneity of covariance was violated when all three dependent variables were combined. Therefore, the MANOVA utilized Pillai's Trace criterions to interpret multivariate effects rather than the Wilk's Lambda statistic following Tabachnick and Fidell's (2007) recommendation. Additionally, Levene's test, $F(7, 195) = 2.93$, $p = .021$, results revealed that homogeneity of variance was violated for perceived treatment credibility, but not for attitudes towards mental health treatment or intentions to seek mental health treatment. Several transformations were utilized to reduce the heterogeneity of variances across groups; however, as Levene's test was still significant following the transformations, the original variable was retained.

Multicollinearity

Multicollinearity was assessed using univariate correlations amongst the dependent variables. While correlations were found between credibility for treatment outcome, intention to seek mental health treatment, and attitudes toward mental health treatment, no correlation was found to be above 0.8 (Franke, 2010), suggesting that multicollinearity among the dependent variables was not a concern. The effect sizes ranged from 0.64 to 0.70 suggesting that the three dependent variables had sufficient covariance with each other to warrant combining them into a composite multivariate dependent variable. However, these variables were also not too highly correlated with one another to suggest problems with multicollinearity between the outcome variables.

Multivariate predictions

A MANOVA test consists of both multivariate and univariate steps. In the multivariate step, scores for intent to seek treatment, attitudes toward treatment-seeking, expectancy for treatment outcome, and perceived treatment credibility were combined into a composite variable. The composite variable was then predicted using three factors: self-construal, valence of client comments, and promotion versus prevention emphasis of client comments. The three-way interaction between self-construal, valence of

Table 4. 2×2×2 MANOVA

Variable	Value	*F*	*df*	*p*	partial η^2
Self-Construal	0.21	1.38	3, 192	0.25	.021
Others vs. Self	0.00	.11	3, 192	0.95	.002
Promotion vs. Prevention	0.03	1.78	3, 192	0.15	.027
Self-Construal × Others vs. Self	0.02	1.25	3, 192	0.29	.019
Self-Construal × Promotion vs. Prevention	0.00	0.20	3, 192	0.90	.003
Others vs. Self × Promotion vs. Prevention	0.02	1.45	3, 192	0.23	.022
Self-Construal × Others vs. Self × Promotion vs. Prevention	0.05	3.48	3, 192	0.02*	.052

* $p < .0.05$

client comments, and promotion versus prevention emphasis was statistically significant, $F(1, 192) = 3.48$, $p = .017$, $\eta^2 = .052$ (Table 4).

To further investigate the three-way interaction, the researchers conducted two post-hoc analyses. First, they separated the composite dependent variable into its individual components to identify any smaller significant effects that might be occurring. However, this initial post-hoc analysis revealed no significant three-way interaction on each of the dependent variables (all *p*s > .050). Alternatively, a second post-hoc analysis involved pairwise comparisons between the eight possible conditions stemming from self-construal (independent versus interdependent), self-versus-others oriented messaging and promotion versus prevention emphasis of client comments while maintaining the composite dependent variable. These comparisons revealed no statistically significant differences in the composite dependent variable between the various groupings (all *p*'s > .050). Taken together, these results do not support the previously mentioned three-way interaction on any individual dependent variables and combined composite dependent variable.[3]

Discussion

The purpose of this study was to examine the effects of cultural values and aspects of clients' ratings on mental health help-seeking beliefs. Specifically, this study explored how independent versus interdependent self-construals, self-versus-others oriented messaging, and promotion-versus-prevention focused messaging may influence attitudes toward seeking mental health treatment, intentions to seek help, and perceived credibility of mental health services. It was hypothesized that participants primed with an interdependent self-construal would report more favorable ratings of psychotherapy (across all four indices) when presented with a prevention-emphasis, others-oriented therapist evaluative comments about psychotherapy. On the other hand, it was hypothesized that participants primed with an individualistic mindset would report more favorable ratings of psychotherapy (across all four indices) when presented with a promotion-emphasis, self-oriented therapist evaluative about psychotherapy. Unfortunately, the overall pattern of results of our study did not support these hypotheses. Further details and implications of this pattern of results are discussed below.

Priming Effects

First, the priming task did not significantly affect participants' self-construal reports contradicting earlier studies that demonstrated the effectiveness of the SDFF task in manipulating independent versus interdependent self-concepts (Oyserman & Lee, 2008; Yang & Vignoles, 2020). Yang and Vignoles (2020) found that the SDFF task significantly influenced all seven self-construal dimensions among Chinese participants, although it was largely ineffective among British participants. In the present study, demographic analyses revealed a skew toward second-generation Asian Americans (60% second generation, $n = 133$; 31% first generation, $n = 69$), suggesting that a substantial portion of our participants may endorse more Western values, potentially diminishing the task's relevance and effectiveness. Additionally, Yang and Vignoles (2020) chose to exclude psychology students from their study, concerned that their familiarity with priming techniques might bias the results. The lack of a similar exclusion criterion in the current study may have contributed to the lack of a significant priming effect for our SDFF task.

Another explanation for the priming task's ineffectiveness may stem from methodological differences between this study and the original approach. Trafimow et al. (1991) used an in-person booklet format, likely enhancing attentional focus and immersion, whereas our online setting may have reduced control of variables that could have confounded our results (e.g., distractions, technical issues). However, it is important to note that not all online-based priming studies have shown reduced effectiveness. Recent studies report results that support the effectiveness of online-based priming studies given the context of a post-pandemic world. Angele et al. (2023) found that online masked priming can be effective for tasks involving recent memory, with effect sizes comparable to in-person studies. Although our priming task similarly activated recent memory through free recall of autobiographical details, the specific requirements of the SDFF task may not have translated well to an online setting. Molden (2014) noted that effective social priming operates outside of conscious awareness. In our study, the less immersive digital setting, coupled with external distractions, may have made participants more aware of the priming attempt,

[3] To increase power, (1) a multivariate multiple regression analyses and (2) a series of univariate hierarchical regressions were conducted with the same independent and dependent variables, albeit with a continuous self-construal variable (as opposed to a binary self-construal variable). Similarly, none of the simple or interaction effects were statistically significant.

thus reducing its effectiveness. Future research might benefit from employing a more implicit priming task, such as the Sumerian warrior task (Trafimow et al., 1991), in an in-person format to minimize distractions and preserve subtlety.

Interaction Effects

As mentioned in the results section, the study design was revised to be a quasi-experimental design by replacing the priming condition with a binary self-construal predictor variable. Within the context of a MANOVA, we did not observe any one-, or two-way interactions between (1) self-construal, (2) self-versus-others orientation, and (3) promotion-versus-prevention focus on the outcomes of this study. These findings contrast with previous literature, which suggested that individuals who identify with Asian culture and values tend to express less favorable attitudes towards seeking professional mental help, often due to conflicts with cultural values and the presence of alternative support systems (e.g., family; Sue & Sue, 1977; Tata & Leong, 1994). These findings also differ from previous literature that has identified an association regulatory focus and mental health treatment seeking behaviors and attitudes (Gorman et al., 2012; Katz et al., 2016; Park et al., 2019).

Some factors might explain the discrepancy between our null findings and previous research. First, participants' attentional difficulties could have played a role. The actual time participants took to complete the entire survey was significantly less than originally expected (15 minutes versus 30 minutes). This rapid pace might have led to skimming the vignette comments, potentially negating the effect of the vignette condition. This may be due to several factors, including the online format of the study as well as the more explicit nature of the task.

Due to time and resource constraints, this study did not include other help-seeking variables. For instance, Szkody et al. (2024) demonstrated that the vertical (hierarchy-focused) and horizontal (equality-focused) dimensions of cultural values influence help-seeking: both horizontal and vertical collectivism were positively linked to help-seeking and perceived support, whereas horizontal individualism was negatively associated with these outcomes and vertical individualism showed mixed effects (Triandis & Gelfand, 1998). Future studies could include the vertical-horizontal dimension of individualistic and collectivistic values in order to replicate and extend the findings reported by Szkody et al. (2024). Moreover, Kim and Lee identified other factors associated with mental health help-seeking, specifically among Asian Americans, such as self-stigma, treatment fears, fear of emotion, and self-disclosure. Future experimental designs could manipulate or assess these factors to examine their impact not only on the current study's observed outcomes, but other outcomes as well such as anticipated stigma and perceived mental health need. This could mean exploring how messaging elements (e.g., self- versus others-orientation) interact with broader cultural values, cognitive styles (e.g., dialectical thinking), and affective ideals held by Asian Americans.

Notably, participants generally reported positive attitudes toward mental health treatment and strong intentions to seek help. Similarly, Szkody et al. (2024) found that individuals from Asian, collectivistic regions exhibited higher help-seeking behaviors—potentially due to reliance on established cultural norms and community resources—compared to those from individualistic societies following the COVID-19 pandemic. Specifically, post-pandemic, individuals in collectivist societies may have felt more confident in seeking mental health support, contributing to an increase in help-seeking behaviors within collectivist cultural contexts. Despite ongoing societal and self-stigma among Asian and Asian-American populations (Cogan et al., 2024; Lagunas et al., 2023), there has been a marked increase in help-seeking through traditional or informal support networks (Szkody et al., 2024). Similarly, Galadima et al. (2024) reported that college students who used mental health services prior to the pandemic had a pronounced likelihood of seeking such services post-pandemic. This unique time period presents an opportunity to develop more effective, culturally relevant ways of increasing access to care for Asian Americans such as engaging trusted community leaders, addressing power imbalances in therapeutic relationships (Tang, 2023), integrating Eastern methodologies, and adopting a holistic biopsychosocial-cultural model to enhance care access. Although the skewness and kurtosis values for the dependent variables were deemed sufficient for a MANOVA, the generally favorable ratings suggested that sizable portion of our Asian American participants may have had favorable attitudes towards and/or reported high intentions on seeking help from a mental health professional based on the fictitious vignette.

Limitations

While diverse in geographical location, the sample lacked variety in other demographic variables, such as immigrant generational status (i.e., mostly 2nd immigrant generation), which limits its generalizability to the larger Asian American population. Moreover, "Asian American" encompasses diverse ethnic groups (e.g., Southeast, East, and South Asians) with distinct languages, histories, and cultural norms, each facing unique challenges such as historical trauma, the model minority myth, or cultural stigma around mental health (Pew Research Center, 2023). Our sample was predominantly composed of East Asians (approximately 59.50%), followed by Southeast Asians (20.20%), and South Asians (11.80%). These differences highlight the need for culture-specific investigations using stratified sampling to tailor research to each subgroup's unique needs for future studies. In addition, a researcher error in the Credibility/Expectancy Questionnaire led to deviations from the original behavioral anchors, resulting in the removal of the expectancy subscale. Additionally, another limitation of this study is the potential need for a larger sample size due to the small effect sizes observed in this dataset. Although our power analysis was based on effect sizes from previous studies that examined similar constructs or utilized a similar experimental paradigm (Nettelhorst et al., 2022; Park et al., 2019), our study is the first to compare uniformly positive evaluation reviews rather than contrasting positive and negative reviews. Therefore, a larger

sample may be necessary to detect potential differences within the context of purely positive evaluations, assuming such effects exist.

Conclusion

In conclusion, while research has been conducted on influences of cultural values and valence of client comments in mental health contexts, there has been limited exploration of the complex interactions between these constructs, particularly among Asian American populations. This study aimed to clarify these relationships through experimental manipulation and statistical analyses, focusing on the impact of these factors on mental health help-seeking attitudes and behaviors. While the results did not support the hypotheses, they highlight the complexity of cultural influences on mental health perceptions and underscore the need for more nuanced approaches in cross-cultural and culture-specific mental health research pertaining to access to care for Asian Americans. Future studies could build upon these insights to develop more useful models of cultural influences on accessibility to mental health care, accounting for internal validity and external validity considerations, including enhanced manipulation of priming effects, consideration of other access to care factors (e.g., cognitive styles, affective ideals), and greater community-engaged research with more diverse Asian American populations.

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Appendix A

Please read the following hypothetical case scenario:
In the past month, you have been feeling depressed most of the day, nearly everyday and are having significant difficulty enjoying all, or almost all, activities. Inundated by feelings of worthlessness, you are having severe difficulties concentrating and are constantly fatigued because you cannot sleep at night. Your physical body has also been affected by depression, as you have lost more than 10% of your body weight in the past month. As a result of these symptoms, you are no longer able to go to classes or hold the part-time job that pays for your daily expenses. Additionally, relationships with friends and family have been strained due to the problems caused by these symptoms. After discussing with your family doctor, he/she suggests that you may be having Major Depressive Disorder. You then go online to look for some mental health providers in your local area. You come across the profile shown on the next page:

Appendix B

Example of Client Review Comments

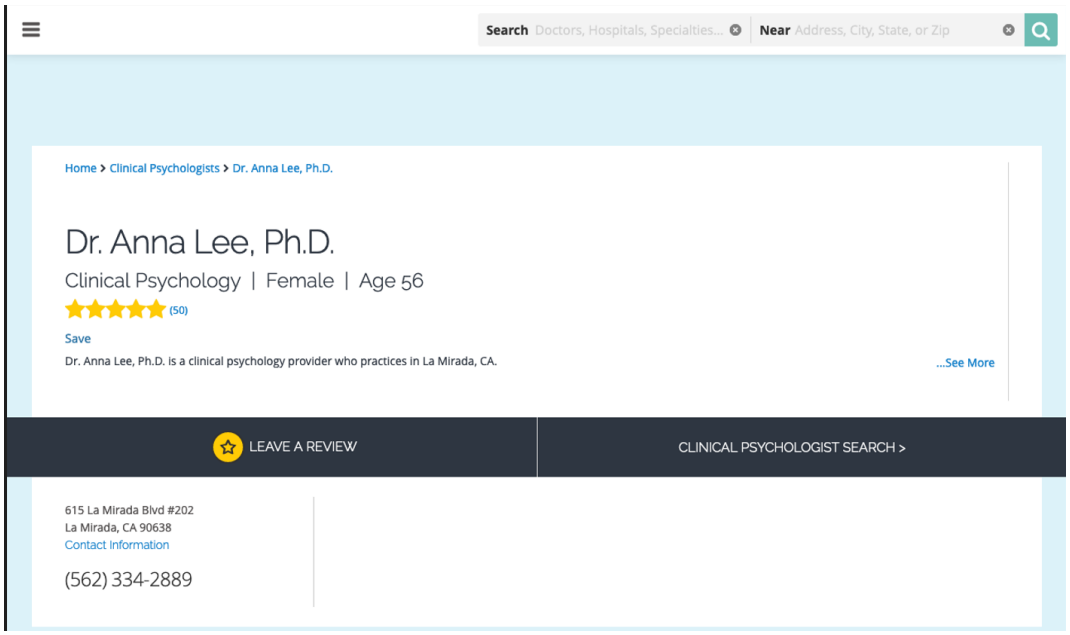
Table Comparison of Reviews Shown to Participants.

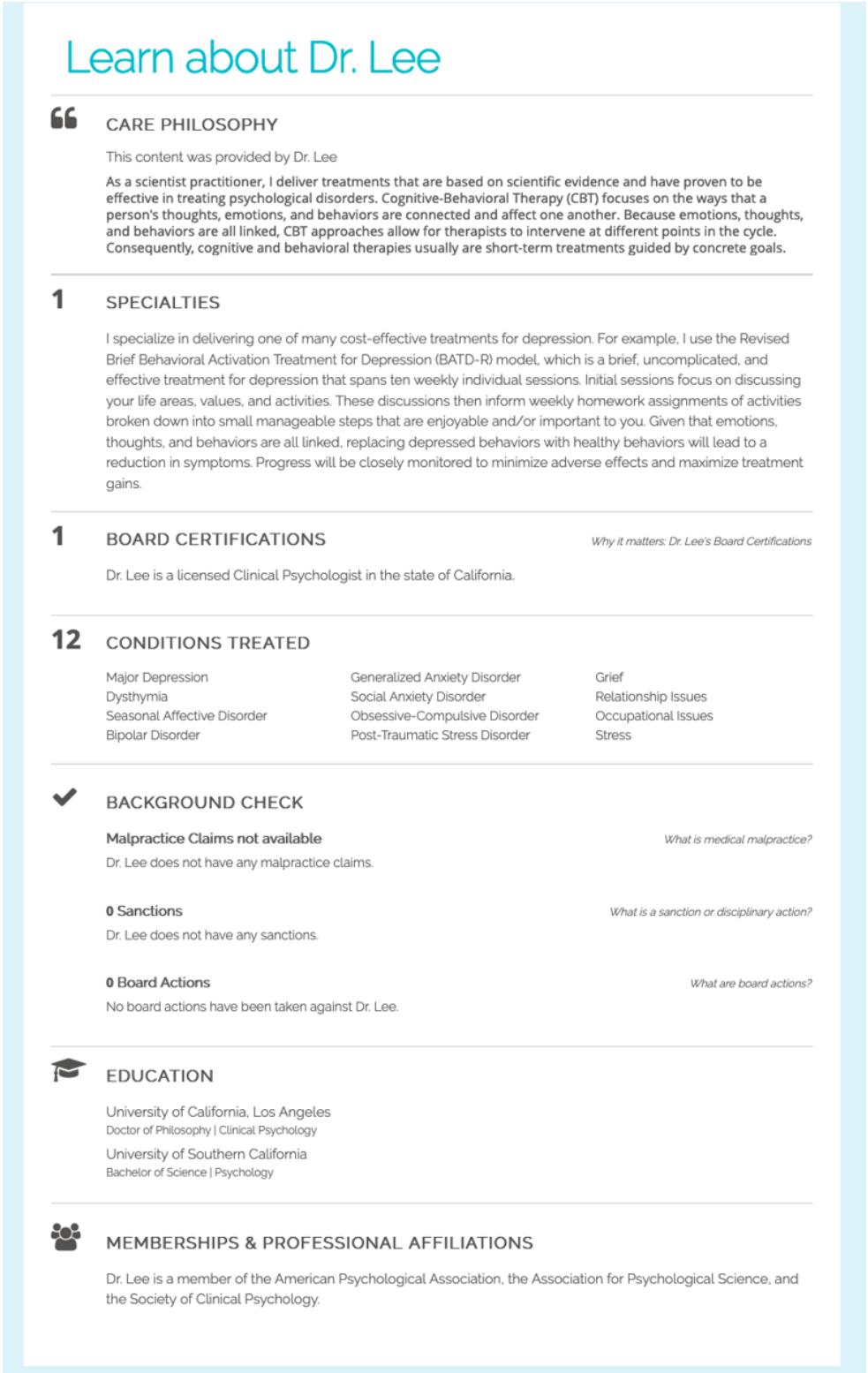
	Promotion	Prevention
Self	• Working with Dr. Lee was truly transformative. Their guidance allowed me to develop strategies to achieve goals that were aligned with my individual aspirations. I am living a much more fulfilled life thanks to the work we did in therapy. • Dr. Lee was amazing. Their support propelled me to achieve things I never thought would be possible in my personal life. I am living a much more fulfilled life thanks to the work we did in therapy. • Thanks to therapy with Dr. Lee, I have learned so much about how to help myself in therapy. I've experienced so much personal benefits from therapy and feel optimistic about my future. • I feel stronger and more resilient since engaging in therapy with Dr. Lee. I now feel a deeper sense of peace/coherence in my inner mind and heart.	• Working with Dr. Lee was truly transformative. Their guidance allowed me to develop strategies to avoid unnecessary stress and personal issues in my life. If it was not for therapy, my personal well-being would be worse than it is right now. • Dr. Lee was amazing. Their support enabled me to prevent many bad things from happening in my life. My personal life was heading in an awful direction, but I was able to change that thanks to the work we did in therapy. • Thanks to therapy with Dr. Lee, I have avoided common/potential pitfalls in my day-to-day responsibilities. I've spared myself so much unnecessary suffering with the help of Dr. Lee. • I was able to prevent depression from causing further damage to my personal health. I am so relieved that we were able to put a stop to the turmoil depression was causing in my inner being.

Ohers	• Working with Dr. Lee was truly transformative. Their guidance allowed me to develop strategies that aligned with my family values. My relationships are much more healthy thanks to the work we did in therapy. • Dr. Lee was amazing. Their support propelled me to achieve things I never thought would be possible in my family relationships. My family life is much more healthy thanks to the work we did in therapy. • Thanks to therapy with Dr. Lee, I have learned so much about how to improve my relationships with loved ones. My relationships have benefitted so much from therapy and I feel optimistic about family life. • I feel a stronger, more resilient bond with family and friends ever since engaging in therapy with Dr. Lee. I now feel a deeper sense of belonging with others.	• Working with Dr. Lee was truly transformative. Their guidance allowed me to develop strategies to avoid unnecessary stress and interpersonal issues in my life. If it was not for therapy, my relationships would be in a worse state than it is right now. • Dr. Lee was amazing. Their support enabled me to prevent many bad things from happening in my relationships. My relationships were heading in an awful direction, but I was able to change that thanks to the work we did in therapy. • Thanks to therapy with Dr. Lee, I have avoided common/potential pitfalls in my dealings with family/friends. I've spared me and my loved ones so much unnecessary suffering with the help of Dr. Lee. • I was able to prevent depression from causing further damage to my ties with family and friends. I am so relieved that I no longer feel as though I am a huge burden to others.

Appendix C

Example of Therapist Profile





Learn about Dr. Lee

CARE PHILOSOPHY

This content was provided by Dr. Lee

As a scientist practitioner, I deliver treatments that are based on scientific evidence and have proven to be effective in treating psychological disorders. Cognitive-Behavioral Therapy (CBT) focuses on the ways that a person's thoughts, emotions, and behaviors are connected and affect one another. Because emotions, thoughts, and behaviors are all linked, CBT approaches allow for therapists to intervene at different points in the cycle. Consequently, cognitive and behavioral therapies usually are short-term treatments guided by concrete goals.

1 SPECIALTIES

I specialize in delivering one of many cost-effective treatments for depression. For example, I use the Revised Brief Behavioral Activation Treatment for Depression (BATD-R) model, which is a brief, uncomplicated, and effective treatment for depression that spans ten weekly individual sessions. Initial sessions focus on discussing your life areas, values, and activities. These discussions then inform weekly homework assignments of activities broken down into small manageable steps that are enjoyable and/or important to you. Given that emotions, thoughts, and behaviors are all linked, replacing depressed behaviors with healthy behaviors will lead to a reduction in symptoms. Progress will be closely monitored to minimize adverse effects and maximize treatment gains.

1 BOARD CERTIFICATIONS

Why it matters: Dr. Lee's Board Certifications

Dr. Lee is a licensed Clinical Psychologist in the state of California.

12 CONDITIONS TREATED

Major Depression	Generalized Anxiety Disorder	Grief
Dysthymia	Social Anxiety Disorder	Relationship Issues
Seasonal Affective Disorder	Obsessive-Compulsive Disorder	Occupational Issues
Bipolar Disorder	Post-Traumatic Stress Disorder	Stress

BACKGROUND CHECK

Malpractice Claims not available *What is medical malpractice?*

Dr. Lee does not have any malpractice claims.

0 Sanctions *What is a sanction or disciplinary action?*

Dr. Lee does not have any sanctions.

0 Board Actions *What are board actions?*

No board actions have been taken against Dr. Lee.

EDUCATION

University of California, Los Angeles
Doctor of Philosophy | Clinical Psychology

University of Southern California
Bachelor of Science | Psychology

MEMBERSHIPS & PROFESSIONAL AFFILIATIONS

Dr. Lee is a member of the American Psychological Association, the Association for Psychological Science, and the Society of Clinical Psychology.

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