Physician Referral to a Psychologist: Testing Alternative Behavioral Healthcare Seeking Models

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Abstract

Objective: Primary care physicians (PCPs) often refer patients to psychological services, but help seeking factors in the context of behavioral healthcare referral are understudied. This study examined perceptions of seeking psychological help for depression by comparing alternative structural equation models derived from the Theory of Reasoned Action (TRA).

Method: Internet survey participants (*N*=685 U.S. adults, 77% female, M_{age}=45) imagined themselves in a vignette scenario in which they are experiencing depression symptoms and encouraged by a PCP to see a psychologist.

Results: Results supported the indirect model, in which the links between distal help seeking factors (i.e., self-stigma, symptom recognition, perceived effectiveness of treatment) and intention to follow through on the referral to the psychologist were fully mediated by the more proximal TRA factors (i.e., attitudes, subjective norms).

Conclusions: Our findings supported the use of TRA in understanding peoples' intention to seek psychological help for depression when referred by their PCP.

Keywords: integrated care, help seeking, help seeking attitudes, stigma, referral

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According to the National Institute of Mental Health (NIMH; 2017) depression affects approximately 6.7% of all U.S. adults. Depression is a primary cause of disability (Cuijpers, de Graaf, & Van Dorsselaer, 2004) and leads to significant public cost (Broadhead, Blazer, George, & Tse, 1990), but many do not seek behavioral healthcare for depression (van Zoonen et al., 2015). Research into the determinants of psychological help seeking has increased our understanding of both the barriers and facilitators of treatment seeking for depression (Schomerus, Matschinger, & Angermeyer, 2009). However, this literature has largely ignored that most clients first seek help for depression from a primary care physician (PCP) rather than a psychologist (Druss et al., 2008; Reust, Thomlinson, & Lattie, 1999). PCPs are integral in connecting clients to behavioral healthcare, but only 33% of clients adhere to PCP referrals (Ishikawa et al., 2014; Reust et al., 1999). Despite this being a common pathway to behavioral healthcare, perceptions of seeking psychological services when receiving a referral from a PCP are not well understood. The prevalence of mental health referrals, depression, and low referral adherence rates highlight a need to understand what motivates clients to follow through on behavioral healthcare referrals. The purpose of the current study was to use the Theory of Reasoned Action (TRA; Ajzen & Fishbein, 1980) to examine key factors (e.g., symptom recognition, perceived effectiveness of treatment, self-stigma of seeking help) associated with clients' intention to seek psychological help for depressive symptoms when referred by a PCP.

The TRA has been essential in understanding psychological help seeking behavior in non-referral contexts (Hammer & Vogel, 2013). In fact, Google Scholar indicates that the TRA has been cited in over 1,400 articles focused on help seeking for mental health concerns. The TRA posits that intention, or how much effort one plans to exert to perform a behavior, is the

primary predictor of actual behavior. Attitudes (i.e., favorable or unfavorable beliefs about seeing a psychologist) and subjective norms (i.e., beliefs about what significant others' think about seeing a psychologist) determine intention to seek psychological help. If clients believe therapy will result in positive outcomes (i.e., positive attitudes) and that important others approve of their seeking help (i.e., positive subjective norms), then they will be more likely to intend to seek help, and subsequently follow through on that intention.

The TRA also states that distal factors, such as symptom recognition and perceived effectiveness of treatment, influence intention via the proximal factors of attitudes and subjective norms (Ajzen & Fishbein, 1980). Some help seeking models identify symptom recognition as the first step of help seeking behavior (Motjabai et al., 2011), yet many psychological help-seeking studies fail to address this variable (e.g., Hess & Tracey, 2013). This is a surprising omission, given that clients are less willing to follow through on a mental health referral if they do not identify their symptoms as related to depression (Wittink, Barg, & Gallo, 2006). Adherence to a PCP's referral may also be influenced by the perceived effectiveness of treatment. In other words, if clients anticipate that seeing a psychologist will lead to a reduction in depressive symptoms, then they could have more positive attitudes toward seeking psychological help (Vogel & Wester, 2003). Although perceived effectiveness of treatment and symptom recognition play an important role in psychological help seeking, the relative contribution of these variables compared to other psychological help seeking variables (e.g., attitudes, subjective norms, self-stigma) has not been fully examined. Examining these factors simultaneously using structural equation modeling could help researchers better understand how symptom recognition and perceived effectiveness of treatment are linked with perceptions of psychological help seeking, as operationalized by the TRA.

Testing Competing TRA Models

Psychological help seeking studies have examined attitudes toward psychotherapy as a full mediator between determinants of psychological help seeking (e.g., perceived effectiveness of treatment) and intention to seek psychological help (Vogel, Wade, Wester, Larson, & Hackler, 2007). This is consistent with the TRA, which states that distal help seeking variables influence intention only indirectly through proximal help seeking factors (Ajzen & Fishbein, 1980). However, certain determinants of help seeking may also directly influence intention regardless of indirect influences via attitudes or subjective norms (Vogel, Wester, Wei, & Boysen, 2005). For example, clients may have negative feelings toward psychotherapy (i.e., attitudes), but if they believe that treatment will reduce their depressive symptoms (i.e., perceived effectiveness of treatment), then they might still be willing to see a psychologist. However, no study has examined this possibility. Determining if attitudes completely account for the relationship between perceived effectiveness and intention, and thus deserve special clinical attention, can help guide the focus of mental health outreach efforts that seek to improve people's perceptions of behavioral healthcare.

The degree to which attitudes and subjective norms account for the relationship between symptom recognition and intention is also important to explore. Correct recognition of mental health symptoms can reduce unhelpful beliefs (e.g., self-reliance) about psychological help seeking (Jorm et al., 2006) which can facilitate more positive attitudes toward psychotherapy (Thompson, Issakidis, & Hunt, 2008). Additionally, PCPs are more likely to detect a mental health concern if clients present their symptoms as reflecting a mental health problem, suggesting that a PCP's behavioral healthcare referral is more likely if clients first recognize their own symptoms as psychological in nature (Kessler, Heath, Lloyd, Lewis, & Gray, 1999).

Therefore, clients' symptom recognition may lead PCPs to recommend behavioral healthcare, which in turn can lead clients to perceive that important others think they should seek psychological help (i.e., more positive subjective norms). However, there is also evidence that, in addition to these indirect relationships via attitudes and subjective norms, symptom recognition may directly increase help seeking intention and behavior (Thompson, Hunt, & Issakidis, 2004). Self-labeling as having depression may activate behavioral schemas conducive to help seeking, even when one's attitudes and subjective norms are not particularly favorable, given that beliefs about the utility of an intervention do not always predict the use of an intervention (Wright et al., 2007). In summary, it is worth testing a total model that includes direct effects from symptom recognition and perceived effectiveness of treatment to intention, in addition to the indirect effects posited by the TRA.

The Present Study

The current study examined perceptions of seeking behavioral healthcare for depression using a vignette design in which participants imagine they are experiencing depression symptoms and are encouraged by a PCP to see a psychologist. The use of a vignette was important, as it allowed us to elicit help seeking beliefs tied to a specific, real-life behavioral healthcare scenario. This is underscored by strong empirical evidence that specific beliefs are more accurate predictors of intention than general beliefs (Fishbein & Ajzen, 1975). The TRA was used to guide the construction of a testable TRA help seeking model (see Figure 1), which intentionally focuses on the ecologically-relevant context of help seeking perceptions when referred by a PCP for behavioral healthcare. The model posits theory-driven links between help seeking determinants (i.e., self-stigma of seek help, perceived effectiveness of treatment, problem recognition) and key TRA variables (i.e., attitudes, subjective norms, intention). The

model also controls for the role of past help seeking behavior, gender, and age, given their documented association with help seeking perceptions (Gum, Iser, & Petkus, 2010; Masuda, Anderson, & Edmonds, 2012). Furthermore, to more thoroughly examine the relations among these help seeking variables, the present study followed best practice recommendations to compare competing theoretical models (Martens, 2005).

The indirect model was built on the classic TRA assumption that distal help seeking factors exert their influence on intention to seek help via the proximal mediators of attitudes and subjective norms. In contrast, the total model allows not only indirect paths, but also direct paths from distal help seeking factors (i.e., perceived effectiveness, illness recognition) to intention. The latter model acknowledges the possibility that perceived effectiveness of treatment and symptom recognition may be linked with intention to seek help for reasons beyond improved attitudes and subjective norms, as discussed above. Chi-square difference testing was used to compare the fit of these nested models to the sample data, in order to determine which model better captures the relations among these help-seeking factors, and is thus worth utilizing to guide future clinical research.

Method

Participants and Procedures

Participants were 685 (149 men, 530 women, 4 other gender identity, 2 preferred not to answer) U.S. adults ranging in age from 18 to 92 (M = 45.30, SD = 16.04). Approximately 82.4% of the sample identified as White, 5.4% as Black, 4.4% as Multiracial, 2.8% as Latino/a, 1.8% as Asian American/Pacific Islander, 1.9% as Other, 0.4% as Native American or Alaskan Native, and 0.9% prefer not to answer. Approximately 0.4% earned less than a high school diploma, 3.5% earned only a high school diploma or GED, 9.1% earned only an associate degree

or attended vocational school, 13.9% had some college experience, 35.5% earned at least a bachelor's degree, 37.2% earned at least graduate or professional degree, and 0.1% preferred not to answer. Approximately 58.7% of participants reported having sought psychological help in the past. Regarding U.S. residence region, approximately 2.8% reported living in New England, 11.2% in Middle Atlantic, 21.4% in East North Central, 7.4% in West North Central, 20.2% in South Atlantic, 13.3% in East South Central, 6.4% in West South Central, 5% in Mountain, 11.8% in Pacific, and 0.4% reported currently residing abroad.

Participants were recruited via ResearchMatch (RM), a national health volunteer registry created by several academic institutions and supported by the U.S. National Institutes of Health as part of the Clinical Translational Science Award (CTSA) program. The University of Kentucky Office of Research Integrity approved the study. RM participants were contacted via the registry regarding the study, advertised as a survey about healthcare and personal well-being. Interested participants were directed to a Qualtrics online survey that began with an informed consent page.

Participants then viewed a vignette adapted from Schomerus et al. (2009), which were verified by five psychopathology experts as accurately describing a person with major depression. The vignette began by asking participants to imagine that they were experiencing depression symptoms (e.g., depressed mood) causing distress and impairment and that they sought help from a PCP. The PCP tells them that an examination and blood work did not identify a physical cause and suggests that the participant might be experiencing depression symptoms and should see a psychologist. The wording of the final sentence of the vignette varied depending on which of 4 conditions the respondents were randomly assigned to: "I can arrange for you to see the psychologist next week, who [is a part of our collaborative team and] has an

office a few blocks from here [down the hall]." We analyzed participants from all 4 conditions together as a single sample in this study because respondents' scores on the study measures did not differ across the 4 conditions. In other words, the slight wording difference of the final sentence of the vignette did not influence participants' responses. This randomization to conditions was for the purposes of pilot testing unrelated to the purpose of the present paper. After reading the vignette, participants completed the study measures and demographics, and then had the option of entering a drawing for a $25 Amazon.com gift card.

Measures

Help seeking perceptions was operationalized using variables drawn from the Theory of Reasoned Action (TRA; Fishbein & Ajzen, 1975) and extant help seeking research. In line with past help seeking research (e.g., Hess & Tracey, 2013), we followed the recommendations of Ajzen (2002) for adapting intention, attitudes, and subjective norms instruments to be compatible on the four elements of target (e.g., psychologist), action (e.g., going to see the psychologist), context (e.g., PCP referral), and time (e.g., now or next few weeks).

Intention. The three-item Mental Help Seeking Intention Scale (MHSIS; Hammer & Spiker, 2018) was adapted to measure participants' intention to seek help from the psychologist described in the vignette (e.g., "I would intend to go see the psychologist."). Participants rated their degree of intention using a 7-point Likert scale from 1 (e.g., *definitely false*) to 7 (e.g., *definitely true*), with higher scores indicating greater intention. Different versions of the MHSIS have been used by help seeking researchers for diverse study contexts. These versions' scores have demonstrated internal consistency (α's > .87) and convergent evidence of validity (Hess & Tracey, 2013). Hammer and Spiker (2018) provided initial support for conceptualizing the MHSIS as a unidimensional instrument that produces an internally consistent total score with

appropriate construct replicability and predictive evidence of validity (i.e., prediction of future help seeking behavior). Internal consistency was .95 [95% CI of .938, .952] in the present study.

Attitudes. Attitudes was assessed with a 5-item attitudes instrument that measures participants' evaluation (unfavorable vs. favorable) of their seeking help from the psychologist (e.g., "For me, going to see the psychologist would be…"). Participants responded using a 7-point semantic differential scale anchored by bipolar adjectives at either end (e.g., *bad* vs. *good*), with higher scores indicating more positive attitudes. Help seeking attitudes instruments that follow Azjen's (2002) recommendations have previously demonstrated evidence of reliability ($\alpha \geq .81$; Hammer, Parent, & Spiker, 2018) and validity (e.g., significant positive association between attitudes and intention to seek help; Schomerus et al., 2009). Internal consistency was .87 [95% CI of .852, .884] in the present study.

Subjective Norms. Subjective norms were assessed with a 3-item subjective norms instrument (e.g., "The people in my life whose opinions I value would ___ of my going to see the psychologist"). Participants responded using a 7-point Likert scale from 1 (e.g., *disapprove*) to 7 (e.g., *approve*), with higher scores indicating more positive subjective norms. Help seeking subjective norms instruments that follow Azjen's (2002) recommendations have previously demonstrated evidence of reliability ($\alpha \geq .81$; Hammer et al., 2018) and validity (e.g., significant positive association between subjective norms and intention to seek help; Schomerus et al., 2009). Internal consistency was .75 [95% CI of .713, .779] in the present study.

Self-Stigma of Seeking Help. The 10-item Self-Stigma of Seeking Help Scale (SSOSH; Vogel, Wade, & Haake, 2006) assessed perceived self-stigma for seeking psychological help. An example item included "I would feel inadequate if I went to the psychologist for psychological help." Participants rated each item from 1 (*strongly disagree*) to 5 (*strongly agree*) with higher

scores indicating greater self-stigma. The internal consistency of this instrument was found to be .88 [95% CI of .869, .895] in the current sample. The SSOSH has demonstrated convergent evidence of validity (Vogel et al., 2006), as well as test-retest reliability over a period of 2 months (α = .72) and internal consistency (α = .89).

Perceived Effectiveness. Perceived effectiveness of treatment was assessed with a single item ("Working with this psychologist would restore me to my normal level of functioning.") rated from 1 (*strongly disagree*) to 5 (*strongly agree*). This item was adapted from the Treatment Effectiveness subscale of the Patient Attitudes Toward and Ratings of Care for Depression questionnaire (Cooper et al., 2000). This item was rated in the scale development study as capturing one of the most important attributes of depression treatment among 126 possible attributes generated from patient focus groups.

Symptoms Recognition. Symptom recognition was assessed with a single yes/no item ("In your opinion, does the scenario describe a person who is depressed?") adapted from a study that examined recognition of several mental health disorders (Eker, 1989). The item used by Eker (1989) asked if the person in the vignette had a mental illness, and we adjusted the item to ask about depression.

Past help seeking. Past help seeking was assessed with a single item adapted from Goodwin et al. (2014): "Have you ever been diagnosed or treated by a professional for mental health conditions including anxiety disorders, depression, panic attacks, phobia, substance abuse/dependence or other dependence (e.g., gambling, internet, sexual)."

Analysis Plan and Data Cleaning

The initial dataset contained 692 individuals. Cases with incorrect responses to both instructed response items (n = 7) were deleted. The final sample (N = 685) was used for all

analyses and reliability estimates. No variables exceeded cutoffs of 3 and 10 for high univariate skewness and kurtosis values, respectively (Weston & Gore, 2006), with the exception of the binary depression label item (skewness = -3.50, kurtosis = 10.31). We used the MLR estimator in M*plus* version 6.11 (Muthén & Muthén, 1998-2012) to estimate the model χ^2 and associated fit indices that use it to protect against deviations from multivariate normality. We noted that removal of univariate (Z-score > 3.29) and multivariate (Mahalanobis D^2 at $p < .001$) outliers did not impact model results. Bivariate scatterplots indicated the presence of homoscedasticity and no evidence of nonlinearity. Missing data ranged from a low of 0% for many items to a high of 2.2% for one of the attitude items. Covariance coverage ranged from .965 to 1.000. We used Full Information Maximum Likelihood (FIML) estimation in M*plus* for all model analyses to handle missing data.

We used a two-step modeling approach (Anderson & Gerbing, 1988), which involves testing a measurement model using confirmatory factor analysis and then partially-latent structural regression models. Kline (2015) states that researchers must first find an acceptable measurement model before proceeding to test a structural model, because omission of theoretically-defensible measurement model respecifications can lead to inaccurate structural model results. Brown (2015) states that respecification of measurement models can involve both dropping bad indicators and specifying correlated errors. Thus, we planned to use modification indices to guide theoretically-defensible respecification, implementing respecifications one step at a time, as needed, until an acceptable measurement model was identified. To control for the effects of demographic covariates in the structural regression models, we first conducted bivariate correlation analyses in SPSS Version 24 (IBM) to identify which demographic variables demonstrated significant relationships with endogenous variables in the structural

regression model. These significant demographic variables (i.e., gender, age) were then specified to correlate with all endogenous variables in the structural regression models. Furthermore, given that the TRA states that past behaviors act on intention via attitudes and subjective norms, and past research documenting an inverse relationship between past behavior and self-stigma of seeking help (Vogel et al., 2006), we specified paths between past help seeking behavior and these three endogenous variables (attitudes, subjective norms, self-stigma of seeking help).

The scaled chi-square statistic (scaled χ^2), Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and standardized root mean square residual (SRMR) were used to assess the goodness of fit for each model. The following fit criteria for acceptable fit were used: RMSEA < .06, CFI > .95, TLI > .95, and SRMR < .08 (Hu & Bentler, 1999). We modeled all four latent constructs (intention, attitudes, subjective norms, self-stigma of seeking help) using their respective instrument items as reflective indicators. All other variables (e.g., age, past mental help seeking behavior) were operationalized as observed variables. The means, standard deviations, and intercorrelations for all analyzed variables can be found in Table 1. Ferguson's (2009) correlation coefficient and standardized beta effect size interpretation suggestions for social science data were used to interpret direct effects: $r/\beta = .2$ is the minimum for a "practically" significant effect, $r/\beta = .5$ for a moderate effect, and $r/\beta = .8$ for a strong effect. Kenny's (2018) suggested effect size interpretation for small (.01 when X and M are both ordinal; .02 when X is dichotomous and M is ordinal), medium (.09 when X and M are both ordinal, .15 when X is dichotomous and M is ordinal), and large (.25 when X and M are both ordinal, .40 when X is dichotomous and M is ordinal) indirect effects was used.

Because best practices in structural equation modeling (SEM) recommend the testing of plausible alternative structural models, we tested the simpler indirect TRA first (Kline, 2015).

We then used a scaled χ^2 difference test ($\Delta\chi^2$) to compare the fit of that nested full-mediation indirect model to the more complex total model. A significant $\Delta\chi^2$ result would indicate that the total model provides a better fit to the data and should be retained for indirect effects testing using the bootstrapping procedure outlined by Shrout and Bolger (2002). One thousand bootstrap draws of the data were used by M*plus* to obtain bias-corrected bootstrap confidence intervals for the direct and indirect effects. Soper's (2013) sample size calculator for structural equation models was used (effect size = .15, power = .80, alpha = .05, number of latent variables = 4, number of observed variables = 20) to calculate the minimum sample size needed for adequate power in the current study. The present sample (N = 685) exceeds the sample required (N = 630) by the most complex model—the total TRA model.

Results

Measurement Model

The initial measurement model (Model 1; M1) did not demonstrate acceptable fit to the data, χ^2 (183) = 865.24, $p < .001$; RMSEA = .074 [90% CI of .069, .079]; CFI = .895; TLI = .879; SRMR = .092. The largest modification index (173.62) suggested specifying a correlated error between two attitude items, which were both about the pleasantness (i.e., pleasant, enjoyable) of seeking help, whereas the remaining instrument items focused on utility (i.e., beneficial, good, valuable). This common item content provided a reasonable theoretical reason to respecify the measurement model with an error correlation between these two items. This second measurement model (M2) demonstrated improved but not yet acceptable fit, χ^2 (182) = 672.03, $p < .001$; RMSEA = .063 [90% CI of .058, .068]; CFI = .924; TLI = .913; SRMR = .091. The largest modification index (152.10) suggested allowing one reverse-scored item from the self-stigma of seeking help instrument to also be a reflective indicator of attitudes, which

indicates this item is a complex indicator and not suitable as a reflective indicator of self-stigma of seeking help. As an artifact of its reverse-score nature, this item (i.e., "My self-esteem would increase if I talked to the psychologist.") appeared to partially measure the help seeking attitudes concept of utility, which provides a theoretical explanation for why it functioned as a poor indicator. The third measurement model (M3) omitted this item as a reflective indicator of self-stigma of seeking help, and likewise demonstrated improved but not yet acceptable fit, χ^2 (163) = 428.01, $p < .001$; RMSEA = .049 [90% CI of .043, .054]; CFI = .957; TLI = .949; SRMR = .065. The largest modification index (74.57) suggested specifying a correlated error between two reverse-scored self-stigma of seeking help items, which were both about how one's view of oneself would not change if one sought help. This concept, shared by these two items, seems to conflate the inverse of self-stigma with the perceived ability of treatment to improve one's view of oneself. This provided a reasonable theoretical reason to respecify the measurement model with an error correlation between these two items. The fourth measurement model (M4), which incorporated the three iterative respecifications suggested by modification indices up to this point, demonstrated acceptable fit, χ^2 (162) = 348.27 $p < .001$; RMSEA = .041 [90% CI of .035, .047]; CFI = .970; TLI = .964; SRMR = .061. Having identified an acceptable measurement model, we proceeded to test the two competing structural models.

Structural Models

The indirect model (M5) demonstrated acceptable fit to the data, χ^2 (255) = 557.69, $p < .001$; RMSEA = .042 [90% CI of .037, .046]; CFI = .957; TLI = .950; SRMR = .076. Parameter estimates for this model are presented in Figure 2. All parameter estimates were congruent with theoretical expectations, with the exception of two: symptom recognition was unrelated to attitudes, and past help seeking was unrelated to subjective norms. The indirect model accounted

for 64.40% of the variance in intention, 49.20% of the variance in attitudes, and 18.50% of the variance in subjective norms.

The total model (M6) also appeared to demonstrate acceptable fit to the data, χ^2 (253) = 551.14, $p < .001$; RMSEA = .042 [90% CI of .037, .046]; CFI = .958; TLI = .950; SRMR = .077. Parameter estimates for this model are presented in Figure 3. The structural paths present in both the indirect and total models demonstrated coefficients of similar direction, magnitude, and significance. Specifically, the difference in magnitude was no greater than .01 for all paths, with the exception of the attitudes to intention path, which was .61 in the indirect model and .55 in the total model. The total model accounted for 64.30% of the variance in intention, 48.30% of the variance in attitudes, and 18.20% of the variance in subjective norms.

The $\Delta\chi^2$ test was non-significant ($\Delta\chi^2 = 6.54$, $p = .09$), indicating that the added complexity of the total model did not sufficiently increase model fit to warrant retention over the indirect model. Thus, we proceeded to use the indirect model for indirect effects testing. Of the ten possible indirect effects (see Table 2), eight were significant (i.e., did not include zero in the 95% confidence interval). The non-significance of the remaining two indirect effects is expected, given that they shared the two non-significant direct paths (see the dotted lines in Figure 2).

Discussion

The current study examined perceptions of seeking behavioral healthcare for depression using a vignette design in which participants imagine they are experiencing depression symptoms and are encouraged by a PCP to see a psychologist. Results supported the retention of the indirect model over the total model, supporting the TRA principle (Ajzen & Fishbein, 1980) that the relationship between distal help seeking factors and intention to seek psychological help is fully mediated by attitudes toward seeking help and perceived subjective norms regarding

seeking help. This aligns with past studies that found distal factors, ranging from adherence to masculine norms (Smith, Tran, and Thompson, 2008) to perceived effectiveness of treatment (Vogel et al., 2005), are mediated by the TRA factors. The distal factors of perceived effectiveness of treatment and symptom recognition did not have a direct effect on intention, but rather demonstrated an indirect relation via the more proximal TRA variables of attitudes and subjective norms. Specifically, perceiving that working with the referral psychologist would be effective at alleviating the depression symptoms was strongly predictive of positive attitudes toward seeking help from the psychologist. In tandem with self-stigma, perceived effectiveness accounted for almost half of the potential variance in attitudes. This further highlights the centrality of perceived effectiveness of treatment vis-à-vis attitudes (Mojtabai et al., 2011), and argues for the specific inclusion of this factor in future help seeking research. Respondents who recognized the symptoms described in the vignette as indicative of depression were slightly more likely (small effect) to perceive that others would want them to seek help (i.e., subjective norms). Interpreting these symptoms as indicative of a mental health disorder rather than subclinical distress may have provided a legitimacy and gravity that, in the minds of the respondents, important others would see as sufficient to warrant professional treatment. What important others think is likely to be salient for people who recognize symptoms of a mental health disorder, as most first reach out to friends and family when in emotional distress (Eisenberg, Hunt, & Speer, 2011). Curiously, symptom recognition did not have a unique relationship with attitudes, which deviates from the literature's precedent (Wittink et al., 2006). The non-significant finding suggests two possibilities. First, Table 1 indicates that these factors have a small to medium bivariate relationship, and this shared variance seems better accounted for by competing distal help seeking factors (e.g., perceived effectiveness). Second, a single-item measure for symptom

recognition may not have been powerful enough to detect a significant effect. Thus, future researchers should seek to replicate our findings with a multi-item symptom recognition instrument to detect its relative contribution to attitudes.

Turning to other aspects of the indirect model, more positive attitudes (strong effect) and subjective norms (medium effect) were associated with greater intention to seek psychological help. This is congruent with the well-established body of help seeking scholarship documenting a link from people's perceptions of the utility of treatment and their perception of what important others think they should do to people's intention to seek treatment (Hammer & Vogel, 2013). Furthermore, greater self-stigma surrounding seeking help was associated (medium effect) with less favorable attitudes and subjective norms and had a small indirect inverse effect on intention via these mediators. The mediational role of attitudes between self-stigma and intention is well-established (Vogel et al., 2007), but the fact that self-stigma had a small indirect effect via less favorable subjective norms represents a novel contribution to the literature. In sum, self-stigma may not only impact one's own perceptions of help seeking's utility but may also color one's judgement about others' expectations. This dovetails with stigma research indicating that people with a mental illness may anticipate discrimination from others (Rusch et al., 2009).

In addition, engaging in past professional help seeking had a small association with more positive attitudes and decreased self-stigma, and a small indirect association with increased intention via self-stigma and attitudes, which parallels past research (Masuda et al., 2012). As with most other health behaviors, past experience with the behavior tends to increase openness to performing that behavior in the future (McEachan, Conner, Taylor, & Lawton, 2011). In terms of demographic covariates, female gender and older age had small associations with decreased self-stigma, in line with extant literature (Pederson & Vogel, 2007).

Addressing Current Limitations through Future Research

Limitations of the current study provide avenues for future research. First, the present study used a correlational and cross-sectional design. While the causal links between the proximal TRA variables have been established in the wider health behavior research (Ajzen & Albarracin, 2007), the present design did not allow for inferring causality and caution must be used when interpreting the findings. Future longitudinal and experimental studies are needed to confirm the theory-derived causal ordering among these variables. Second, only self-report data were used in the current study. As a result, monomethod bias is a potential issue. Third, while the use of a vignette can increase ecological validity over other forms of survey research, field research that measures actual help seeking behavior represents an important next step.

Fourth, the sample was overrepresented by educated White women and the generalizability of these findings to other intersectional populations should be tested rather than assumed. Research often documents differences in help seeking factors across sociocultural groups (Lindsey, Joe, & Nebbitt, 2010; Shea & Yeh, 2008), and we recommend future studies examine the utility of the indirect model across demographic lines. Also, given the ResearchMatch.org registry source, the participants likely have a more vested interest in healthcare. Thus, caution should be used if generalizing these findings to other populations. Fifth, perceived effectiveness and symptom recognition were measured with single items, with the latter having a binary distribution. More robust measures of these factors using multi-item instruments would help verify the strength of these factors' relationship with the TRA factors.

Future studies could add to the indirect model by testing additional help seeking variables for potential inclusion. For example, both perceived trustworthiness and perceived competence of the PCP could be included in future studies given the role of the client-PCP relationship in

referral adherence (Alegria et al., 2008; Kravitz et al., 2011). One's knowledge and beliefs about mental health (i.e., mental health literacy) may also be important to consider for its impact on psychological help seeking (Spiker & Hammer, 2018). The fact that certain respondents did not identify the person in the vignette as having depression indicates a potential lack of mental health knowledge that could influence perceptions of psychological help seeking. In addition, gender role socialization (i.e., men and women's gendered attitudes internalized from cultural norms and values; Addis & Mahalik, 2003) would be important to examine in the behavioral healthcare context. Adherence to both traditional masculine (Hammer, Vogel, & Heimerdinger-Edwards, 2013; Author Citation) and feminine norms (Shea et al., 2017) can influence help seeking behaviors, but it is unclear how these internalized norms may influence referral adherence.

Conclusions and Implications for Practice

In conclusion, the present findings supported the use of TRA in understanding peoples' intention to seek psychological help for depression when referred by their PCP. Given that our study specifically examined PCP referral for behavioral healthcare for depression, we offer practice suggestions tied to this context. We recommend PCPs and other members of the primary care team attend to patients' attitudes toward obtaining psychological help, with particular attention to their perceptions of behavioral healthcare's effectiveness. Many patients presenting to a PCP with depression symptoms may not even know what integrated behavioral healthcare is or how effective it can be in treating their depression symptoms (Sadock, Perrin, Grinnell, Rybarczyk, & Auerbach, 2017). It is important that PCPs first understand what behavioral health is and understand its proven level of effectiveness for depression so that they can "pitch" it to their patients in a succinct and compelling manner. Doing so, with support from the findings of the current study, may have potential to improve patients' attitudes and subjective norms for

behavioral healthcare, which could then increase their intention to seek care. As a result, research on whether PCPs truly understand behavioral healthcare and whether they can and do describe it and its effectiveness accurately to patients is critical. We also recommend PCPs check in with the patients regarding their degree of agreement with the "depression" label and how they make meaning of these symptoms. This degree of symptom recognition may in turn be weakly tied to their perceptions of what they think important others in their lives would want them to do, in regard to following through in the behavioral healthcare referral to a psychologist. To leverage the impact of subjective norms on intention, PCPs may also consider communicating directly, with patient permission, to significant others. Patients are more likely to engage in health behaviors when supported by a partner or spouse (Beverly & Wray, 2010). The dual pathways to intention offer professionals the opportunity to help patients with less favorable attitudes but more supportive subjective norms (or vice versa) to seek help. Specific discussion about how they would feel about themselves if they sought help (i.e., self-stigma of seeking help) could also help inform why certain patients may have less favorable attitudes and subjective norms related to seeking psychological help. Brief interventions such as self-affirmation exercises (Lannin, Guyll, Vogel, & Madon, 2013) may help reduce the influence of self-stigma as a barrier. In sum, PCPs wishing to increase referral adherence may benefit from assessing for and targeting key perceptions associated with seeking psychological help for depression.

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Table 1

Means, Standard Deviations, and Intercorrelations among Measures (N = 685)

Study Variables	*M*	*SD*	1	2	3	4	5	6	7	8	9
1. Intention	5.49	1.59	-								
2. Attitudes	5.03	1.18	.69**	-							
3. Subjective Norms	5.44	1.31	.55**	.35**	-	.					
4. Self-Stigma of Seeking Help	2.16	0.72	-.39**	.49**	.25**	-					
5. Perceived Effectiveness of Treatment	3.28	0.88	.55**	.56**	.30**	-.25**	-				
6. Symptom Recognition	1.93	0.25	.25**	.17**	.18**	-.04	.26**	-			
7. Past Help seeking	0.59	0.49	.12**	.09*	.07	-.14**	.01	.07	-		
8. Age	45.30	16.04	-.03	.03	-.02	-.24**	-.08*	.00	.04	-	
9. Gender	1.78	0.41	.11**	.06	.07	-.07	.08	.03	.06	.11**	-

Note: * $p < .05$, ** $p < .01$

Table 2

Bootstrap Analysis of Magnitude and Statistical Significance of Indirect Effects for Indirect Model

Predictor	Mediator	Criterion	Standardized indirect effect β	*SE*	Bootstrap estimate *B*	*SE*	95% CI (unstandardized) Lower bound	Upper bound
Perceived Effectiveness of Treatment	**Attitudes**	**Intention**	.328	.043	.571	.079	.443	.689
Perceived Effectiveness of Treatment	**Subjective Norms**	**Intention**	.073	.019	.128	.034	.082	.194
Symptom Recognition	Attitudes	Intention	.030	.020	.187	.120	-.008	.389
Symptom Recognition	**Subjective Norms**	**Intention**	.052	.018	.322	.110	.163	.525
Self-Stigma of Seeking Help	**Attitudes**	**Intention**	-.163	.029	-.305	.055	-.405	-.226
Self-Stigma of Seeking Help	**Subjective Norms**	**Intention**	-.084	.023	-.158	.044	-.243	-.095
Past Help Seeking	**Attitudes**	**Intention**	.038	.017	.117	.052	.042	.208
Past Help Seeking	Subjective Norms	Intention	.016	.013	.049	.041	-.013	.122
Past Help Seeking	**Self-Stigma of Seeking Help**	**Attitudes**	.041	.012	.089	.027	.042	.132
Past Help Seeking	**Self-Stigma of Seeking Help**	**Subjective Norms**	.037	.013	.103	.038	.045	.167

Note. Indirect path is significant if the 95% confidence interval (CI) does not include 0. All bold paths were significant.

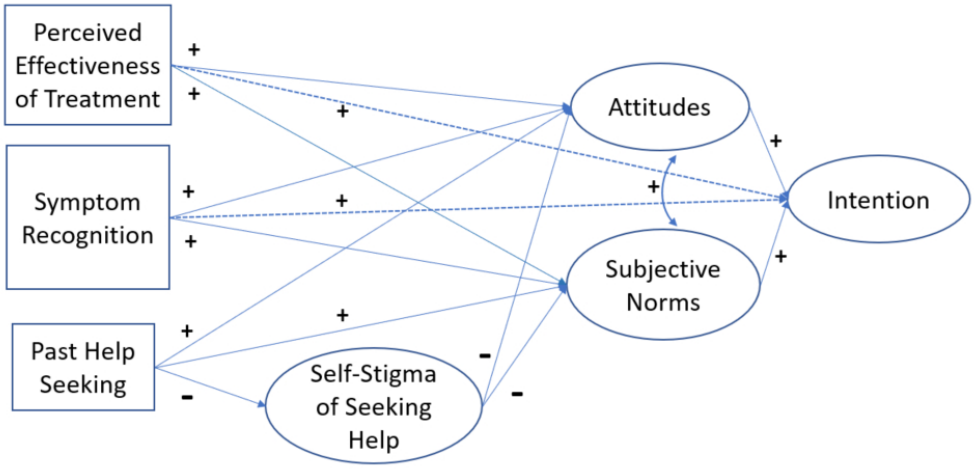

Figure 1. The Theory of Reasoned Action Help Seeking Model. Lines and signs indicate the presence and valence of the hypothesized paths. The indirect model specifies links between the variables as indicated by the solid lines. The total model specifies links between the variables as indicated by both the solid and dashed lines.

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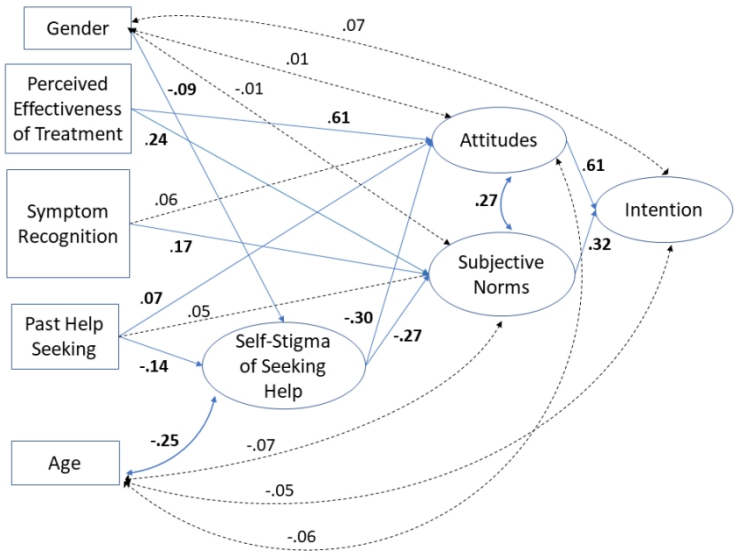

Figure 2. The indirect model. Parameter estimates represent standardized regression coefficients. Double arrow lines indicate covariances. Full lines indicate significant paths at $p < .05$, whereas dashed lines represent non-significant paths.

338x190mm (96 x 96 DPI)

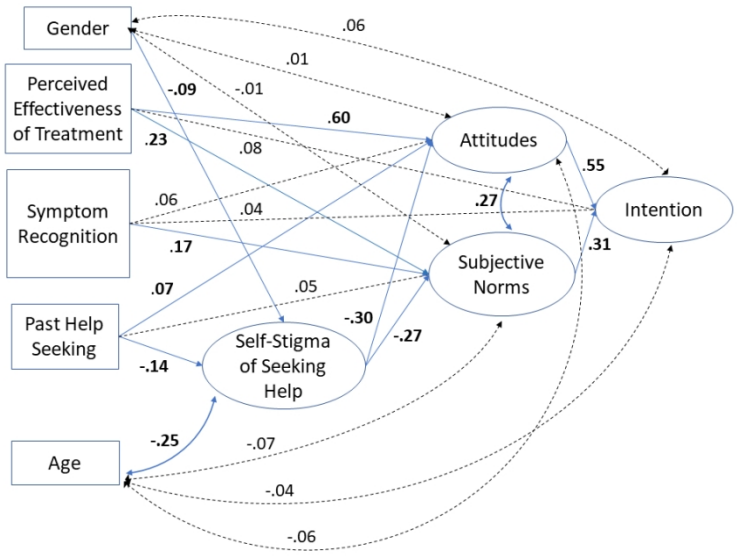

Figure 3. The full model. Parameter estimates represent standardized regression coefficients. Double arrow lines indicate covariances. Full lines indicate significant paths at $p < .05$, whereas dashed lines represent non-significant paths.

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