

# The Role of Outcome Expectations and Attitudes on Decisions to Seek Professional Help

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Two studies examined the predictors of seeking psychological services. Study 1 examined the role of attitudes in mediating the relationship between 11 psychological factors and intent to seek help for 3 psychological problems. The results demonstrated that (a) the psychological factors and attitudes predicted 62% of the variance in intent to seek help for interpersonal problems and 18% of the variance for drug problems and (b) attitudes toward counseling mediated most of the relationships between the different psychological factors and help-seeking intent. Study 2, in turn, demonstrated that (a) anticipated outcomes of talking with a counselor were associated with the use of psychological services and (b) anticipated risks of disclosing emotions were salient for those having experienced a distressing event.

*Keywords:* help seeking, intentions, attitudes, anticipated risks, anticipated benefits

Psychotherapy has been described as “a potentially difficult, embarrassing, and overall risky enterprise . . . [that can] induce fear and avoidance in some individuals” (Kushner & Sher, 1989, p. 256). Consistent with this statement, the extant literature consistently reports that people see counseling as a last resort (Hinson & Swanson, 1993), that they would prefer to handle things on their own or in conjunction with individuals close to them (Wills, 1992), and that less than one third of the people who could likely benefit from psychological treatment obtain such services (Andrews, Is-sakidis, & Carter, 2001). This presents a serious problem. It seems as if a large majority of those who could likely benefit from psychological counseling do not seek such service. Perhaps a better understanding of the reasons underlying people’s decisions to seek counseling could allow the profession to reach out to those who need services (Komiya, Good, & Sherrod, 2000).

A number of psychological factors have been examined in relation to help seeking for psychological problems. For example, individuals are more likely to seek counseling when they perceive their problems as more severe than the problems of others (Goodman, Sewell, & Jampol, 1984) and when they sense that their decision to do so will reduce their feeling of distress (Mechanic, 1975). Individuals with a social network that accepts and encourages help seeking rather than rejects or discourages help seeking may also be necessary for the person to see seeking help as a positive choice (Friedson, 1961; Rickwood & Braithwaite, 1994). At the same time, concerns of being perceived as crazy can decrease the chances an individual will seek out services even

when the potential consequences of not seeking counseling services (i.e., increased suffering) are severe (Sibicky & Dovidio, 1986). Indeed, studies have demonstrated several psychological factors that inhibit help seeking from a professional. These psychological factors are fear of treatment (Amato & Bradshaw, 1985; Kushner & Sher, 1989; Pipes, Schwarz, & Crouch, 1985), anticipated costs (Vogel & Wester, 2003), desire to avoid discussing distressing information (Cepeda-Benito & Short, 1998; Cramer, 1999; Kelly & Achter, 1995; Vogel & Wester, 2003), desire to avoid experiencing painful feelings (Komiya et al., 2000), and desire to avoid the social stigma or negative judgments from others (Deane & Chamberlain, 1994).

Despite the potential significance of these psychological factors, however, a direct examination of multiple psychological factors simultaneously with help seeking is needed. Researchers have tended to examine the role of these psychological factors in isolation from one another. As a result, we do not know the relative effect of the different factors on people’s decision to seek help. This is an important omission in the literature, as some contradictory results exist across studies regarding the importance of different factors. Some studies, for example, have reported that psychological distress and social support do not significantly predict help-seeking intent (Kelly & Achter, 1995; Vogel & Wester, 2003), whereas others show a connection between these factors and intent to seek help (Cepeda-Benito & Short, 1998; Cramer, 1999). Similarly, other studies have demonstrated that certain factors that should decrease or inhibit help seeking, such as the desire to avoid self-disclosing painful feelings or fears about what therapy will be like, affect help-seeking decisions (Kelly & Achter, 1995; Kushner & Sher, 1989; Vogel & Wester, 2003), whereas others do not (Carlton & Deane, 2000; Deane & Todd, 1996). As a result, it is important to directly examine these psychological factors simultaneously with a more sophisticated analysis such as structural equation modeling (SEM). By doing so, researchers will be able to better understand what factors have a unique effect on

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people's help-seeking decisions and predict a greater amount of the variance in help-seeking attitudes and intent.

Moreover, development of a structural model that examines the relationships between different factors and intent to seek help would allow for potential theories of the relationships between factors to be directly examined. For example, several researchers have suggested that a better understanding of people's help-seeking behavior could be gathered by using Ajzen and Fishbein's (1980) theory of reasoned action (TRA; Bayer & Peay, 1997; Codd & Cohen, 2003; Halgin, Weaver, Edell, & Spencer, 1987). Specifically, TRA asserts that people's actions are decided through a series of rational judgments. The most direct predecessor of a behavior or action is the intention to perform the behavior (Ajzen & Fishbein). Underlying an individual's behavioral intent are the person's attitudes about the behavior (i.e., the positive and negative feelings about the behavior). From this perspective, then, attitudes are distinct from intentions yet one of the most important determinants of intentions (Ajzen & Fishbein). Indeed, consistent with this perspective, studies have shown that the best predictor of help-seeking intent is the person's attitude toward seeking professional help (e.g., Bayer & Peay; Halgin et al.).

Attitudes, in turn, are predicted by a person's outcome expectations (Ajzen & Fishbein, 1980). For example, if a person anticipates a constructive outcome for a certain behavior (e.g., seeking help will lead to not feeling sad anymore), then they will have a positive attitude (e.g., seeking help is a good thing). Conversely, if a person anticipates a harmful outcome for a certain behavior (e.g., "If I seek help, others will think I am crazy"), then they will have a more negative attitude (e.g., seeking help is a bad thing). From this perspective, the psychological factors, discussed previously, may be considered either to be perceived as those that lead to a positive outcome (e.g., reduce feelings of distress) and thus increase positive attitudes or to be perceived as leading to a negative outcome (e.g., increased social stigma, increased risks, or fear of having to disclose painful feelings) and thus increase negative attitudes. Therefore, the psychological factors examined in the extant literature may be considered as part of the person's outcome expectations and, as a result, may play a role in a person's help-seeking intentions through their effect on attitudes. Consistent with this idea, most empirical studies examining the psychological factors or outcome expectations involved in help-seeking decisions have shown that they are linked with a person's attitudes (Kelly & Achter, 1995; Vogel & Wester, 2003). This suggests a mediation model in which the psychological factors are linked to one's intent to seek help through attitudes toward help seeking. However, this hypothesis has not been directly tested.

There is also a need to examine a model in which the role that different factors play can vary on the basis of people's decisions to seek help for different issues. Ajzen and Fishbein (1980) suggested that the importance of different outcome beliefs will change on the basis of the specific behavior of interest. Other researchers (i.e., Kushner & Sher, 1991) have also suggested that different psychological factors should be associated with intentions to seek help for different types of problems. Meissen, Warren, and Kendall (1996), for example, found that college students were differentially willing to seek help for different psychological problems. In particular, college students were least willing to seek help for alcohol issues. This may make some sense, as people may perceive the outcome of seeking help for drug issues negatively given that the problem is viewed negatively by society and, therefore, there may be a

higher social stigma attached to seeking help for this issue. Not surprisingly, Takeuchi, Leaf, and Kuo (1988) found that psychosocial barriers (i.e., social stigma) were reported as a greater reason for not seeking treatment for an alcohol problem than for an emotional problem. In turn, other interpersonal issues, such as sexual or child abuse, may elicit other concerns such as the fears of having to discuss painful emotions. Cepeda-Benito and Short (1998) found that the desire to conceal personal information played a role in intentions to seek help for interpersonal and academic problems but not for drug problems. Therefore, it seems important to continue to directly examine the role that different psychological factors play in people's intentions to seek help for different types of problems.

The overall goal of this research was to directly examine the relations among the different psychological factors and help-seeking decisions through attitudes toward seeking professional help. In Study 1, using SEM analyses, we examined the role of the previously examined psychological (i.e., distress, social support, social norm, stigma, treatment fears, self-concealment, self-disclosure, anticipated utility, and anticipated risk) and demographic (i.e., previous use of counseling, biological sex) factors in predicting one's attitudes toward seeking professional help. In turn, we examined the role of attitudes toward seeking professional help in the prediction of intentions to seek psychological services for three different psychological problems (interpersonal, academic, and drug problems). Doing so extended previous work and theory by directly exploring the role of attitudes as a mediator of these inhibiting and supporting factors on a person's intent to seek help. We hypothesized that the association between these factors and intent to seek help for interpersonal, academic, and drug problems would be mediated by attitudes toward seeking professional help (see Figure 1). In Study 2, then, we extended the findings of Study 1 by examining the role of certain inhibiting factors on actual help-seeking behavior for those having experienced a specific distressing event. We hypothesized that the inhibiting factors would account for significant and unique variance in predicting participants' actual behavior for seeking psychological help. In addition, we predicted a moderation effect of distressing experience such that the effect of these inhibiting factors would be more salient for those having experienced a distressing event than those not having experienced a distressing event.

## Study 1

### *Method*

#### *Participants*

Three hundred fifty-four college students recruited from psychology classes at a large Midwestern university participated in Study 1. Of the participants, 236 were women, and 118 were men. Of those, 64% were freshman, 22% were sophomores, 9% were juniors, 4% were seniors, and 1% reported "other." Two hundred eighty-six (81%) of the participants had never been in counseling, and 68 (19%) of the participants had been in counseling before. Participants were predominantly European American (84%; African American = 5%; Asian American = 7%; Hispanic = 1%, other = 3%).

#### *Measures*

*Social stigma.* Social stigma was measured with the 5-item Stigma Scale for Receiving Psychological Help (SSRPH; Komiya et al., 2000).

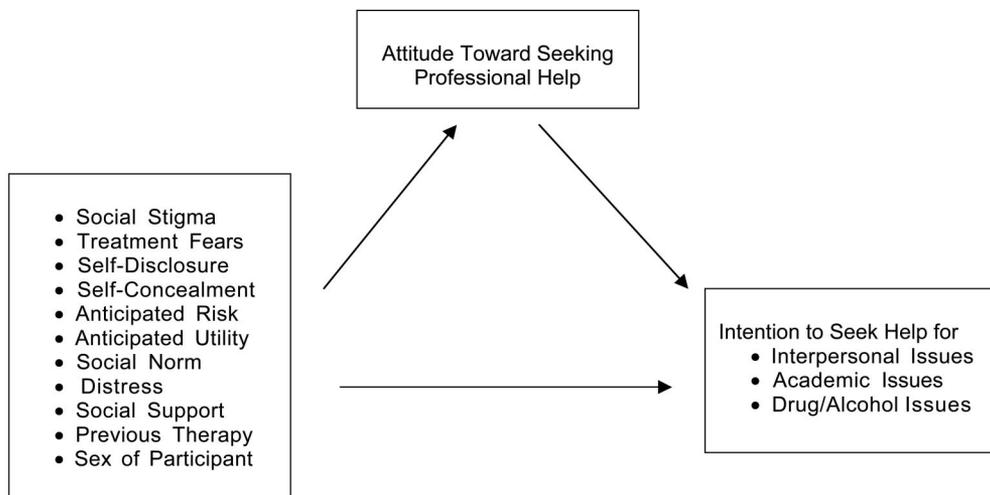


Figure 1. The hypothesized model.

The SSRPH was designed to assess perceptions of the stigma associated with seeking professional help. It contains five Likert-type questions ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). The items are summed so that higher scores reflect greater perceptions of stigma. A sample item is "Seeing a psychologist for emotional or interpersonal problems carries social stigma." The internal consistency for the measure was originally found to be .73. In the present study, the internal consistency of the measure was .78. The SSRPH has been found to correlate with the attitude toward seeking professional help ( $r = -.40, p < .001$ ; Komiya et al.). In order to create the observed indicators for the latent variable of social stigma, we followed the recommendation of Russell, Kahn, Spoth, and Altmeyer (1998) and created two parcels. The parcels were created by conducting an exploratory factor analysis using the maximum-likelihood method and then successively assigning pairs of the highest and lowest items, based on the magnitude of the factor loadings, to each parcel in order to equalize the average loadings of each parcel on its respective factor.

**Treatment fears.** Treatment fears were measured with the 19-item Thoughts About Psychotherapy Survey (TAPS; Kushner & Sher, 1989). The TAPS is an expanded version of the Thoughts About Counseling Survey (TACS; Pipes et al., 1985). Items are rated on a 5-point Likert-type scale ranging from 1 (*no concern*) to 5 (*very concerned*). The TAPS has been found to have three subscales reflecting fears about how the therapist will respond (Therapist Responsiveness), fears about being judged negatively for seeking treatment (Image Concerns), and fears about being pushed to think or do things that they do not want to (Coercion Concerns). An example of Therapist Responsiveness is "Whether the therapist will be honest with me." An example of Image Concerns is "Whether the therapist will think I am a bad person if I talk about everything I have been thinking and feeling." An example of Coercion Concerns is "Whether I will be pressured to do things in therapy I don't want to do." Internal consistency for the subscales has been shown to be good for Therapist Responsiveness (.92), Image Concerns (.87), and Coercion Concerns (.88, Kushner & Sher). In the present study, the subscale's reliabilities were similar: .88, .81, and .84, respectively. All three subscales have been found to relate to level of distress, with those experiencing less distress also experiencing less fear (Kushner & Sher). Not surprisingly, those who sought psychological services also expressed less fear across the three subscales. The three subscales of the TAPS (Therapist Responsiveness, Image Concerns, and Coercion Concerns) served as the three observed indicators for the latent variable of treatment fears.

**Self-disclosure.** Comfort with the self-disclosure of distressing emotions was measured with the 12-item Distress Disclosure Index (DDI; Kahn & Hessling, 2001). The DDI was designed to measure the degree to which

a person is comfortable talking to others about personally distressing information. Items are rated on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). A sample item is "When I feel upset, I usually confide in my friends." Six items are reversed scored so that higher scores reflect a greater willingness to self-disclose distressing information. The DDI has been suggested to contain a single factor (Kahn & Hessling) and to correlate with the Self-Disclosure Index (.43; Miller, Berg, & Archer, 1983) and with the Self-Concealment Scale (.35; Larson & Chastain, 1990). The DDI has also been found to relate to the actual numbers of later disclosures and individual expressions (Kahn, Lamb, Champion, Eberle, & Schoen, 2002). DDI scores have shown stable test-retest correlations across 2- (.80) and 3-month periods (.81, Kahn & Hessling). Internal consistency for the measure has been shown to be high across studies (.92-.95, Kahn et al.). The internal consistency for the measure, in the present study, was also high (.93). In order to create the latent variable of self-disclosure, we again followed the procedure recommended by Russell et al. (1998) and created three parcels for the self-disclosure latent variable.

**Self-concealment.** Self-concealment was measured with the 10-item Self-Concealment Scale (SCS; Larson & Chastain, 1990). The SCS is designed to assess the desire to actively conceal personal information from others. The SCS has participants respond on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Responses are summed such that higher scores reflect a stronger desire to conceal personal information. The SCS correlates with measures of anxiety, depression, and physical symptoms (Larson & Chastain). The reliabilities for this measure have been reported to be adequate, with studies revealing internal consistencies between .83 and .87 and test-retest reliabilities between .74 and .81 (see Cramer & Barry, 1997; Larson & Chastain, 1990). In the present study, the internal consistency for the measure was .88. We created three parcels for the self-concealment latent variable.

**Anticipated utility and anticipated risk.** The anticipated utility and the anticipated risk of seeking help from a counselor were measured with the Disclosure Expectations Scale (DES; Vogel & Wester, 2003). The DES is an 8-item questionnaire designed to assess participants' expectations about the utility and the risks associated with talking about an emotional problem with a counselor. The two identified subscales each consist of four items rated on a 5-point Likert-type scale ranging from 1 (*not at all*) to 5 (*very*). Responses are summed for each subscale such that lower scores reflect less anticipated utility and less anticipated risk. A sample item for Anticipated Utility is "How likely would you get a useful response if you disclosed an emotional problem you were struggling with to a counselor?" A sample item for Anticipated Risk is "How risky would it feel to disclose your

hidden feelings to a counselor?" The two subscales have been identified in factor analyses and have been found to correlate with measures of self-disclosure and self-concealment as well as with social support and psychological distress (Vogel & Wester). The internal consistency for the subscales was previously found to be .83 for Anticipated Utility and .74 for Anticipated Risk (Vogel & Wester). The internal consistency for the subscales in the present study was .81 for Anticipated Utility and .80 for Anticipated Risk. Two parcels for the anticipated utility latent variable and two parcels for the anticipated risk latent variable were created.

**Social norm.** The social norms of those close to us for seeking help was measured with the question used by Bayer and Peay (1997). It asks participants to rate on a Likert-type scale ranging from 3 (*likely*) to -3 (*unlikely*) the item: "Most people who are important to me would think that I should seek help from a mental health professional if I were experiencing a persistent personal problem in my life." Bayer and Peay found that this norm uniquely predicted help-seeking intent such that those who were likely to seek help responded to this item more favorably. This item was used as a single observed indicator of the social norm latent variable.

**Psychological distress.** Psychological distress was measured using the Hopkins Symptoms Checklist-21 (HSCL-21; Green, Walkey, McCormick, & Taylor, 1988). The HSCL-21 is a shortened form of the Hopkins Symptoms Checklist (Derogatis, Lipman, Richels, Uhlenhuth, & Covi, 1974). The HSCL-21 is a 21-item inventory of the somatic, performance, and general distress currently experienced by a respondent. It is rated on a 4-point Likert-type scale ranging from 1 (*not at all*) to 4 (*extremely*), with higher scores reflecting greater distress. A sample item is "Feeling lonely." The HSCL-21 has been reported to detect changes in therapy outcome and to be related to other counseling outcome measures (Deane, Leatham, & Spicer, 1992). The HSCL-21 measure has an internal consistency of .90 for a total score. It also has been shown to have three reliable subscales: General Feelings of Distress ( $\alpha = .86$ ), Somatic Distress ( $\alpha = .75$ ), and Performance Difficulty ( $\alpha = .85$ ). In the present study, the internal consistency was .90 for the total scale, .87 for General Feelings of Distress, .82 for Somatic Distress, and .78 for Performance Difficulty. The three HSCL-21 subscales (General Feelings of Distress, Somatic Distress, and Performance Difficulty) were used as the three observed indicators of the psychological distress latent variable.

**Social support.** Social support was measured with the Social Provisions Scale (SPS; Cutrona & Russell, 1987). The SPS is a 24-item measure developed to assess perceptions of the quality of the social support network. Each item is rated on a 4-point Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Half the items are reversed scored so that higher scores reflect greater perceptions of a strong social support network. A sample item is "There are people I can depend on to help me if I really need it." The internal consistency (.85-.92) and test-retest reliabilities (.84-.92) of the scale have been found to be adequate across studies. The SPS has also been found to correlate with other measures of social support (Cutrona & Russell). The SPS was designed with six subscales in mind: Attachment, Social Integration, Reassurance of Worth, Reliable Alliance, Guidance, and Opportunity for Nurture. In the present study, the internal consistency for the total score was .92. The internal consistency for the six subscales was .68 for Attachment, .75 for Social Integration, .72 for Reassurance of Worth, .77 for Reliable Alliance, .84 for Guidance, and .60 for Opportunity for Nurture. The six SPS subscales were used as the observed indicators of the social support latent variable.

**Attitudes toward seeking professional help.** Attitudes toward seeking professional help were measured with the Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS; Fischer & Farina, 1995). This version of the ATSPPHS is a shortened 10-item revision of the original 29-item measure (ATSPPHS; Fischer & Turner, 1970). Items are rated on a 4-point Likert-type scale ranging from 1 (*disagree*) to 4 (*agree*), with five items reversed scored so that higher scores reflect more positive attitudes. A sample item is "If I believed I was having a mental breakdown,

my first inclination would be to get professional attention." The revised scale strongly correlated with the longer version (.87), suggesting that they are tapping similar constructs (Fischer & Farina). The revised scale also correlated with previous use of professional help for a problem (.39). The 1-month test-retest (.80) and the internal consistency (.84) reliabilities were also found to be adequate. For the present study, internal consistency of the measure was .82. Three parcels were created as three observed indicators for the latent variable of attitudes toward seeking professional help.

**Intentions to seek counseling.** Intentions to seek counseling were measured with the Intentions to Seek Counseling Inventory (ISCI; Cash, Begley, McCown, & Weise, 1975). The ISCI is a 17-item measure that asks respondents to rate how likely, ranging from 1 (*very unlikely*) to 4 (*very likely*), they would seek counseling if they were experiencing the problem listed. Problems include issues such as relationship difficulties, depression, personal worries, and drug problems. Recently, three subscales of the ISCI have been identified (see Cepeda-Benito & Short, 1998). These included Interpersonal Problems (10 items), Academic Problems (4 items), and Drug/Alcohol Problems (2 items). Responses on the ISCI are summed for each subscale such that higher scores indicate a greater likelihood of seeking counseling for that problem. The measure has been found to detect preferences in college student's intent to seek counseling with counselors presented as more or less attractive. The ISCI has also been found to be associated with the significance of a current problem (Lopez, Melendez, Sauer, Berger, & Wyssmann, 1998). The ISCI has adequate internal consistency estimates for the three subscales (i.e., .90 for Interpersonal Problems, .71 for Academic Problems, and .86 for Drug/Alcohol Problems; see Cepeda-Benito & Short). In the present study, the internal consistency for the subscales was .88 for Interpersonal Problems, .69 for Academic Problems, and .87 for Drug/Alcohol Problems. Three and two parcels were created for the intent to seek help for interpersonal issues and the intent to seek help for academic issues latent variables, respectively. For drug issues, because there are only two items, the sum of these two items was used as one observed indicator for the intent to seek help for drug issues latent variable.

## Procedure

Students were informed that participation was voluntary and anonymous. They were told that the procedure would involve answering questions regarding their thoughts about seeking professional help. After completing an informed consent sheet, participants received a packet containing each of the above measures as well as some demographic questions, including a question asking whether they had used or are currently using counseling services. In order to reduce the potential for order effects, three versions of the questionnaire were created with the measures randomly presented in each version.<sup>1</sup> After finishing the questionnaire, participants were debriefed and then dismissed. All participants received extra credit in their psychology class for their participation and had been offered an equivalent option (i.e., participant in another experiment or a writing assignment) to earn the extra credit.

## Results

Table 1 shows means, standard deviations, and zero-order correlations for the 13 variables. The means and standard deviations for this sample were very similar to those reported in previous

<sup>1</sup> We attempted to examine the order effects in the subsequent measurement and structural models. However, the model could not converge because of the small sample size. Therefore, we conducted a multivariate analysis of variance (MANOVA) to examine potential order differences among the variables. The MANOVA result indicated no significant difference among the variables as a result of the order of the measures ( $p > .30$ ).

Table 1  
Means, Standard Deviations, and Zero-Order Intercorrelations Among the Variables in Study 1

Variable <sup>a</sup>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Attitude	25.6	5.3	—	.56	.21	.28	-.31	.36	-.19	-.08	-.25	.57	.04	.06	.42
2. Interpersonal	21.8	5.9		—	.53	.41	-.20	.30	.05	.24	-.07	.48	.25	-.11	.39
3. Academic	8.3	2.5			—	.14	-.04	.15	-.04	.23	-.03	.23	.13	-.05	.18
4. Drug	5.6	2.0				—	-.07	.14	-.02	.14	.10	.25	.02	.11	.27
5. Social stigma	10.6	3.0					—	-.13	.24	.28	.25	-.12	.09	-.20	-.07
6. Self-disclosure	41.8	9.7						—	-.47	-.07	-.20	.28	-.06	.26	.19
7. Self-concealment	25.7	8.4							—	.31	.24	-.07	.41	-.38	-.04
8. Treatment fears	47.3	13.8								—	.38	.06	.30	-.19	.07
9. Anticipated risk	12.4	3.6									—	-.06	.08	.03	-.05
10. Anticipated utility	12.9	3.3										—	.07	.04	.38
11. Distress	36.7	10.0											—	-.54	.09
12. Social support	82.2	9.8												—	.09
13. Social norm	1.2	1.4													—

Note.  $N = 354$ . Correlations  $\leq .11$  are significant at  $p < .05$ ; correlations  $\leq .15$  are significant at  $p < .01$ ; correlations  $\leq .19$  are significant at  $p < .001$ . Attitudes = Attitudes Toward Seeking Professional Psychological Help Scale; Interpersonal = Interpersonal concerns subscale of the Intentions to Seek Counseling Inventory; Academic = Academic concerns subscale of the Intentions to Seek Counseling Inventory; Drug = Drug concerns subscale of the Intentions to Seek Counseling Inventory; Social stigma = Stigma Scale for Receiving Psychological Help; Self-disclosure = Distress Disclosure Index; Self-concealment = Self-Concealment Scale; Treatment fears = Thoughts About Psychotherapy Survey; Anticipate Risk = Risk subscale of the Disclosure Expectations Scale; Anticipated Utility = Utility subscale of the Disclosure Expectations Scale; Distress = Hopkins Symptoms Checklist-21; Social support = Social Provisions Scale.

<sup>a</sup> The  $36 \times 36$  correlation matrix of the variables, which served as indicators of these 13 latent variables, can be obtained from David L. Vogel upon request.

help-seeking studies (see Cepeda-Benito & Short, 1998; Kelly & Achter, 1995; Vogel & Wester, 2003). The zero-order correlations also showed that attitudes were related to intent to seek help for interpersonal, drug, and academic problems. In addition, attitudes were related to most of the psychological factors measured, including social stigma, self-disclosure, self-concealment, anticipated risk, anticipated utility, and social norms.

### Testing Mediated Effects<sup>2</sup>

It is generally agreed that SEM is the preferred method for testing mediation (Frazier, Tix, & Barron, 2004; MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). In testing mediation using SEM, Anderson and Gerbing (1988) suggested following a two-step procedure: (a) conducting a confirmatory factor analysis in order to develop a measurement model with an acceptable fit to the data and (b) conducting a structural model to test the hypothesized model. We used the maximum-likelihood method in the LISREL (Version 8.54) program to examine the measurement and structural models. Three indices were used to assess the goodness-of-fit of the models: the comparative fit index (CFI;  $\leq .95$ ), the standardized root-mean-square residual (SRMR;  $\geq .08$ ), and the root-mean-square-error of approximation (RMSEA;  $\geq .06$ ; see Hu & Bentler, 1999).

**Normality.** As the maximum-likelihood procedure we planned to use to test our hypothesized model assumes normality, we first examined the multivariate normality of the observed variables (see Bollen, 1989). The result indicated that the data were not multivariate normal,  $\chi^2(2, N = 354) = 1061.29, p < .001$ . Therefore, the Satorra-Bentler scaled chi-square (see Satorra & Bentler, 1988) will be reported in subsequent analyses.

**Measurement model.** A test of the measurement model resulted in a good fit to the data, Satorra-Bentler scaled  $\chi^2(493, N = 354) = 884.52, p < .001, CFI = .96, SRMR = .05, RMSEA = .05$  (90% confidence interval [CI], .05, .06). All of the measured

variables significantly loaded on the latent variables (all  $ps < .001$ ). Therefore, the latent variables appear to have been adequately measured by their respective indicators.

**Structural model.** We hypothesized that attitudes would mediate the relations between the psychological factors and intent to seek help for interpersonal, drug, and academic problems. The structural model used to test this hypothesis (see Figure 2) showed a good fit of the model to the data, Satorra-Bentler scaled  $\chi^2(493, N = 354) = 884.52, p < .001, CFI = .96, SRMR = .05, RMSEA = .05$  (90% CI: .05, .06). Five of the psychological factors (social support, self-disclosure, anticipated utility, stigma, social norm) along with previous use of counseling significantly predicted attitudes toward seeking professional help (see Figure 2). Attitudes toward seeking professional help, in turn, predicted intent to seek help for interpersonal and drug issues but not for academic issues. Of most interest, treatment fears did not predict attitudes but was the only factor to have a direct effect on intent to seek help for academic issues. Both treatment fears and comfort with self-disclosure also had direct effects on intent to seek help for interpersonal issues. It is also important to note that the psychological and demographic factors accounted for 66% of the variance in professional help-seeking attitudes. In turn, 62% of the variance in intent to seek help for interpersonal issues and 18% of the variance in intent to seek help for drug issues were explained by these factors and attitudes.

<sup>2</sup> Although the main focus of Study 1 was to examine the mediating role of attitudes, given one reviewer's concern, we also examined whether distress served as a moderator by conducting a hierarchical regression in which the continuous predictors were standardized and the interactions of distress and each predictor variable (self-disclosure, risk, utility, sex, etc.) were entered. Of most interest, distress did not moderate any of the relations between the variables and help-seeking attitudes or intent.

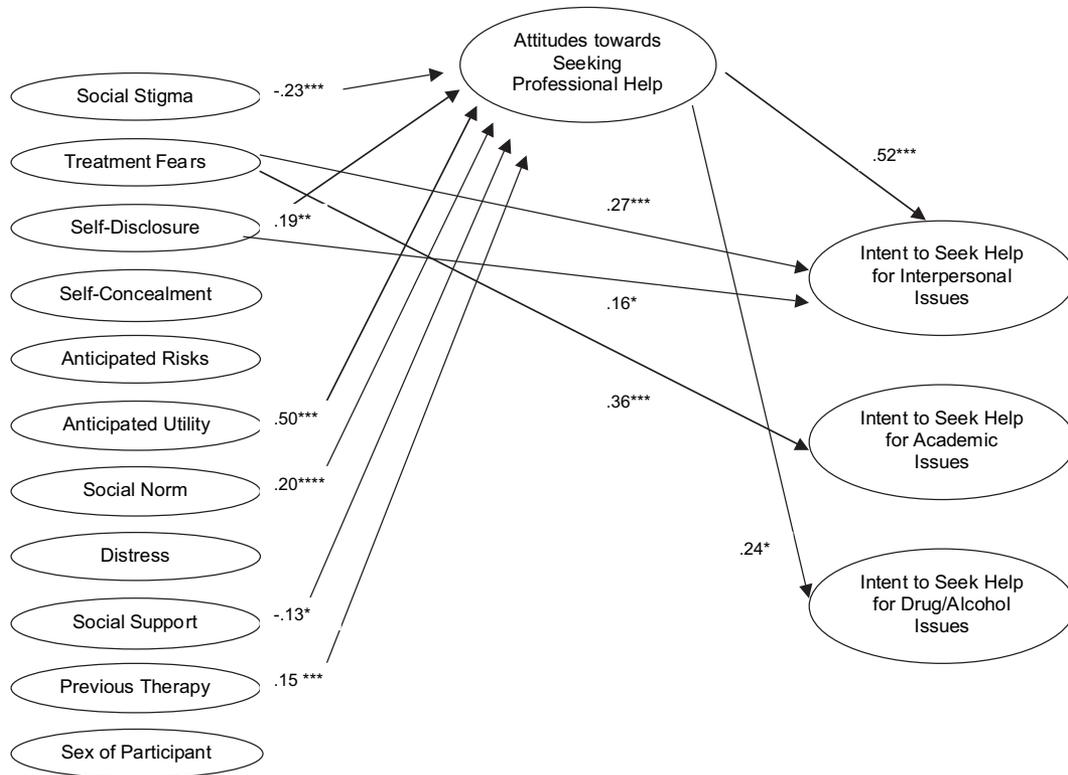


Figure 2. The structural model.  $N = 354$ . All structural paths were examined in the structural model. Nonsignificant structure paths are not shown in the figure. Intercorrelations among independent latent variables and intercorrelations among dependent latent variables are also not shown in the diagram because of limited space. (The results, including all possible paths, can be obtained from David L. Vogel upon request.) \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

*Bootstrapping.* Although it has been recommended that mediation effects should be examined with the significant levels of the indirect effect reported by the LISREL program, the method used by LISREL to calculate the standard error of the indirect effect has been found to yield incorrect estimates (MacKinnon et al., 2002). Instead, Shrout and Bolger (2002) suggested the use of a bootstrap procedure in order to develop a more accurate estimate of the standard error of the indirect effect. The bootstrap procedure is an empirical method of determining the significance of statistical estimates (Efron & Tibshirani, 1993). The standard error is the expected variability of an estimate if the estimation were repeated a large number of times. Therefore, we used the bootstrap procedure in order to test the statistical significance of indirect effects.

The first step in this bootstrap procedure was to create 1,000 bootstrap samples from the original data set ( $N = 354$ ) by random sampling with replacement. The second step was to conduct the structural model 1,000 times with these 1,000 bootstrap samples to yield 1,000 estimations of each path coefficient. The third step was to use LISREL's saved output of the 1,000 estimations of each path coefficient to calculate an estimate of indirect effect. So, the indirect effect of each of these six significant factors (social support, self-disclosure, anticipated utility, stigma, social norm, and previous counseling) on help-seeking intent for interpersonal and drug issues through the mediator of attitudes toward seeking help was calculated by multiplying 1,000 pairs of the path coefficients (a) from each of the six significant factors to attitudes and

(b) from attitudes to two types of intention to seek help (one for interpersonal issues and the other for drug issues). In other words, a total of 12 indirect effects was estimated for their significant levels (see Figure 2). If the 95% CI for these estimates of indirect effects does not include zero, then a conclusion can be made that the indirect effect is statistically significant at the .05 level (see Shrout & Bolger, 2002). The results indicated that the 95% CI for these 12 indirect effects did not include zero, indicating that these indirect effects were statistically significant.

### Discussion

The overall goal of Study 1 was to examine the mediating role of attitudes between the different psychological factors and help-seeking intent. Specifically, using an SEM, we found that five psychological factors (social support, self-disclosure, anticipated utility, social stigma, and social norm) and previous use of counseling significantly predicted attitudes toward seeking professional help. In turn, attitudes toward seeking professional help predicted intent to seek help for interpersonal and drug issues. These findings extend previous research and theory by providing some support for applying Ajzen and Fishbein's (1980) theory of reasoned action to professional help seeking. In particular, it seems that most of the psychological factors about whether therapy would be a helpful or harmful experience were associated with the attitudes

toward help seeking, which, in turn, contributed to the participants' intent to seek help for interpersonal and drug issues.

Our findings are largely consistent with previous research. First, previous studies have found that participants' attitudes toward seeking psychological help were significantly associated with past counseling experience (Deane, Skogstad, & Williams, 1999), self-disclosure (Hinson & Swanson, 1993; Vogel & Wester, 2003), anticipated utility (Vogel & Wester), social stigma (Deane & Chamberlain, 1994; Sibicky & Dovidio, 1986), and social network and social support (Cepeda-Benito & Short, 1998; Rickwood & Braithwaite, 1994). Second, the significant association between attitudes toward seeking professional help and the actual intent to seek counseling is consistent with previous relationships found between attitudes and behavioral intention (Bayer & Peay, 1997; Codd & Cohen, 2003; Halgin et al., 1987). Finally, our finding that certain factors (i.e., treatment fears and self-disclosure) had direct effects on intent to seek help for specific issues (i.e., interpersonal and/or academic) is consistent with the previous finding that different issues were associated with particular outcome expectations about seeking help (Cepeda-Benito & Short, 1998; Takeuchi et al., 1988).

These results begin clarifying some of the contradictory findings of previous studies regarding the relative importance of different psychological factors (Cepeda-Benito & Short, 1998; Cramer, 1999; Deane & Todd, 1996; Kelly & Achter, 1995; Kushner & Sher, 1989; Vogel & Wester, 2003). When all of the measured factors were included in the model, our results provided evidence for the importance of certain factors (social support, self-disclosure, anticipated utility, stigma, social norm, and previous counseling), over other factors in the prediction of attitudes or intentions to seek professional help. Two of these null findings, in particular, deserve some discussion. Psychological distress and participant sex did not contribute unique variance to help-seeking attitudes or intent. The nonsignificant finding for distress may be because the relationship between distress and intent is more a function of the type of distress experienced rather than the overall amount of distress. Some studies have suggested that it is not general distress per se but the experience of an intense problem that leads to seeking help (Norcross & Prochaska, 1986). As a result, our use of a general distress measure rather than identifying those who had or were experiencing an intense problem may have lessened any potential differences in the findings. General distress and biological sex may also not be factors that associate with attitudes or intent directly. As in any situation in which there are both positive and negative expected consequences, certain factors will have to take prominence or become salient in a person's decision. Consistent with this, in several previous studies (Kelly & Achter, 1995; Vogel & Wester, 2003) when other factors have been included in the analyses, general distress and biological sex did not show up as significant predictors.

### *Conclusion and Limitations*

In all, the findings of this study lend strong support for our model of attitudes as mediators between psychological factors and help-seeking intentions. In addition, a large amount of variance in help-seeking attitudes and intent was accounted for when the measured psychological factors were examined simultaneously. In particular, 66% of the variance in attitudes, 62% of the variance in intent to seek help for interpersonal concerns, and 18% of the

variance in intent to seek help for drug concerns were explained in the present study. Despite the importance of these findings, however, some limitations of Study 1 should be noted. First, although the present study used an SEM analysis, which removed potential measurement error, the results are still based solely on self-report measures. As such, biases in reporting may be present. In addition, SEM procedures do not allow for causal relationships to be identified. Finally, consistent with most studies on help seeking, a limitation of Study 1 is that actual help-seeking behavior was not measured. Several authors have noted that an important next step would be to assess the role of help-seeking factors on actual future behavior (Fischer & Farina, 1995). This assessment became the focus of Study 2.

### Study 2

Previous research has examined the role of people's outcome expectations in influencing people's decision to seek help. These studies have shown that positive or negative outcome expectations can influence self-reported attitudes and intentions to seek help and that these factors often differ for those who have and have not sought therapy in the past. However, information has, generally, been gathered at only one point in time, leading to a "confounding of the independent measures and help seeking" (Phillips & Murrell, 1994, p. 270). Examination of the concurrent effects of outcome expectations on attitudes, intentions, and past behavior is an important first step. Yet, if we are to truly understand why individuals choose to seek or not seek help, then we must directly examine the role of positive and negative expectations on future help-seeking behavior (Takeuchi et al., 1988). As a result, a need exists to assess the role of the previous examined factors on participants' future behavior. In Study 2 we take a step toward addressing this need by examining the role of positive and negative outcome expectations regarding emotional self-disclosure to a counselor in predicting whether participants used counseling services over the course of a semester. Previous research (including Study 1) has shown that people's comfort with disclosing personal information (Cepeda-Benito & Short, 1998; Kelly & Achter, 1995; Vogel & Wester, 2003), willingness to talk about one's emotions with a counselor (Ciarrochi & Deane, 2001; Komiya et al., 2000; Vogel & Wester, 2003), and expectations about what effect the emotional self-disclosure will have (Vogel & Wester) play an important role in participants' self-reported attitudes and intentions to seek help, but this work has not shown a direct connection between these factors and actual help-seeking behavior.

We also extend previous research in Study 2 by examining the links between having experienced a distressing event, expectations regarding emotional self-disclosure, and help-seeking behavior. Seeking help from another often involves an "emotionally charged interaction" (Depaulo & Fisher, 1981, p. 201). However, talking about an emotional experience with a counselor may be particularly salient for those who have experienced a distressing event in their lives, as they may reexperience the painful emotions associated with the event during therapy (Greenson, 1987). As such, concerns about emotional expression may be heightened for individuals who have experienced a distressing event. Indeed, studies have shown that even after seeking help, many clients withhold emotions they were afraid to express from a therapist (Hill, Thompson, Cogar, & Denman, 1993; Kelly, 1998). Komiya et al. (2000) also found that reluctance to seek psychological services

was greater for those less open to their emotions. Similarly, those less skilled at dealing with emotions have also been found to be less likely to seek help, in general, as well as less likely to seek help from a mental health professional for concerns about suicide (Ciarrochi & Deane, 2001). Therefore, those who have experienced a distressing event should be most likely to report concerns about self-disclosing emotional issues to a counselor.

We designed Study 2 to have a large enough sample to follow people over time, explore their service usage, and to identify a group of individuals who had experienced a distressing event. Specifically, we examined the relationship between participants' comfort with disclosing distressing information and anticipated utility and risk in talking about emotional issues with a counselor at Time 1 with their actual use of professional services 2–3 months later. We also examined both the direct and moderating effects of having experienced a distressing event. We hypothesized that both the comfort and anticipated utility and risk about emotional disclosure would account for significant and unique variance in predicting participants' actual behavior for seeking psychological help. In addition, we predicted a moderation effect of distressing experience such that the effect of these factors would be more salient for those having experienced a distressing event than those not having experienced a distressing event.

## Method

### Participants

A new sample of 1,128 (622 women and 506 men) college students were recruited from psychology classes at a large Midwestern university. Of these participants, 61% were freshman, 23% were sophomores, 10% were juniors, 5% were seniors, and 1% reported "other" or did not respond. Participants were predominantly European American (87%; African American = 3%; Asian American = 3%; Hispanic = 2%, Native American = 1%, other = 4%).

### Measures

**Self-disclosure.** Self-disclosure was measured with the 12-item DDI (Kahn & Hessling, 2001), described in Study 1. The internal consistency of the measure, in the present study, was .93.

**Anticipated utility and anticipated risk.** Anticipated utility and anticipated risk were measured with the 8-item DES (Vogel & Wester, 2003), described in Study 1. The internal consistency of the scales, in the present study, was .83 for Anticipated Utility and .78 for Anticipated Risk.

**Psychological stressor.** Whether a person had experienced a psychological stressor or not was gathered by asking participants the following yes–no question: "Have you ever suffered from severe or serious trauma, abuse or loss in your life (e.g., was physically abused by parents as a child; lost your mother in the young age; was sexually abused; witnessed a murder, etc.)?"

### Procedure

Participants were contacted through classes and assessed in groups. They completed an informed consent and then the DDI, the DES, a question concerning whether they had experienced a distressing event in their life, and some demographic questions (i.e., year in school and race/ethnicity). After finishing the questionnaire packet, participants were debriefed and then dismissed. After 2–3 months, participants were recontacted through their classes and asked whether they had sought therapy or counseling services since the last survey. This results in 617 (54.7%) of the original participants ( $N = 1,128$ ) answering both rounds of data. All participants

received extra credit in their psychology class for their participation. All participants were also offered an equivalent option to earn the extra credit in order to lessen the risk of possible coercion.

## Results

### Descriptive Data

The 617 individuals who participated in both rounds of data collection were similar to the larger sample in terms of demographics. Of these participants, 64% were freshman, 23% were sophomores, 9% were juniors, and 4% were seniors. Participants were also predominantly European American (90%; African American = 2%; Asian American = 3%; Hispanic = 1%, Native American = 1%, other = 3%). Those who participated at Time 2 were also similar to those who participated at Time 1 with regard to biological sex,  $\chi^2(1, N = 1,128) = 2.74, p = .10$ ; reporting of a psychological stressor,  $\chi^2(1, N = 1,098) = 0.93, p = .34$ ; anticipated risk,  $t(1125) = 1.40, p = .16$ ; and anticipated utility,  $t(1125) = -0.07, p = .94$ . Those who participated at Time 2 did report higher scores on comfort with self-disclosure of distressing emotions,  $t(1120) = -2.06, p < .05$ , though this difference was small (mean difference 1.30 on a 60-point scale).

Of the 617 individuals who participated in both rounds of data, 64 (10.4%) sought psychological help from Time 1 to Time 2. Of these 617 participants, 104 (16.9%) also reported having experienced a distressing event. Twenty-one (20.2%) of those who experienced a distressing event went to counseling over this period, whereas 43 (8.4%) of those who had not experienced a distressing event went to counseling over this period. This represented a significant difference between those who went to counseling and those who did not,  $\chi^2(1, N = 602) = 12.1, p < .001$ . Thus, we included distressing experience in the subsequent analyses.

Table 2 shows means, standard deviations, and zero-order correlations for the measured variables. The means and standard deviations for this sample were very similar to those reported in Study 1 and to previous help-seeking studies (see Cepeda-Benito & Short, 1998; Kelly & Achter, 1995; Vogel & Wester, 2003). The zero-order correlations showed that the three emotional disclosure variables (comfort with self-disclosure of distressing emotions and anticipated utility and anticipated risk of self-disclosing emotions to a counselor) were significantly related to each other but, as expected, shared only a small amount of their variance (< 15%).

### Emotional Self-Disclosure and Help Seeking

To examine the role of the emotional self-disclosure variables in predicting help-seeking behavior, we ran a logistics regression (see

Table 2  
Means, Standard Deviations, and Intercorrelations of the Variables in Study 2

Variable	<i>M</i>	<i>SD</i>	1	2	3
1. Self-disclosure	39.5	9.9	—	.31***	-.23***
2. Anticipated Utility	12.6	3.3		—	-.13**
3. Anticipated Risk	12.9	3.4			—

Note.  $N = 617$ . Self-disclosure = Distress Disclosure Index; Anticipated Utility = Utility subscale of the Disclosure Expectations Scale; Anticipate Risk = Risk subscale of the Disclosure Expectations Scale.  
\*\* $p < .01$ . \*\*\* $p < .001$ .

Table 3). To examine potential moderating effects of a distressing event, all predictors with continuous variables were first standardized in order to reduce multicollinearity among predictors and their interaction terms (see Cohen, Cohen, West, & Aiken, 2003; Frazer et al., 2004). The three emotional self-disclosure variables (DDI, DES-utility, and DES-risk), biological sex (0 = male, 1 = female), and distressing experience (0 = yes, 1 = no) were included as the first-block predictors of help-seeking behavior (0 = not sought help, 1 = sought help). Then, four interaction terms between a distressing event and each of the other four variables (i.e., disclosure, anticipated utility, anticipated risk, and biological sex) were created as the second block and entered in the second step of the regression. The regression was significant,  $\chi^2(9, N = 600) = 31.9$ ,  $p < .001$ , correctly classifying 90% of participants (100% of those who did not seek help and 6% of those who sought help). The results showed the main effect of anticipated risk,  $\chi^2(1, N = 600) = 6.2$ ,  $p = .01$ , and an interaction between distressing experience and anticipated risk,  $\chi^2(1, N = 600) = 5.3$ ,  $p = .02$ . We also tested the statistical significance of the slopes of the simple regression lines for those who had a distressing experience and those who had not had a distressing experience (see Aiken & West, 1991; Cohen et al., 2003; Frazer et al., 2004). For those who had experienced a distressing event, anticipated risk significantly predicted the probability of help-seeking behavior,  $\chi^2(1, N = 600) = 6.1$ ,  $p = .02$ , whereas for those who had not experienced a distressing event, anticipated risk did not significantly predict the probability of help-seeking behavior,  $\chi^2(1, N = 600) = 0.04$ ,  $p = .84$ . To interpret the interaction, we plotted the predicted probability of seeking help for those who had experienced a distressing event and those who had not experienced a distressing event across different levels (1 or 2 standard deviations above or below the mean) of anticipated risk (see Figure 3). Those who had experienced a distressing event were more likely to seek professional help but only when the anticipated risks were high.

### Discussion

Study 2 illustrates the importance of emotional self-disclosure in understanding help-seeking behavior. Specifically, the antici-

Table 3  
Summary of Logistics Regression Analysis for the Prediction of Help-Seeking Behavior

Variable	B	SE B	$\chi^2$	p
<b>Step 1</b>				
Self-disclosure	-0.23	0.16	2.0	.155
Anticipated utility	0.37	0.15	5.7	.015
Anticipated risk	0.17	0.15	1.3	.254
Sex of participant	-0.56	0.32	3.1	.077
Distressing experience	0.80	0.30	7.0	.008
<b>Step 2</b>				
Self-disclosure	-0.2	0.34	0.2	.648
Anticipated utility	0.5	0.30	2.7	.101
Anticipated risk	0.9	0.34	6.2	.013
Sex of participant	-1.6	0.83	3.8	.052
Distressing experience	-0.5	0.82	0.4	.531
Disclosure $\times$ Distress	-0.1	0.39	0.1	.768
Utility $\times$ Distress	-0.2	0.36	0.2	.663
Risk $\times$ Distress	-0.9	0.39	5.3	.021
Sex $\times$ Distress	-1.3	0.90	2.0	.156

Note.  $N = 600$ .

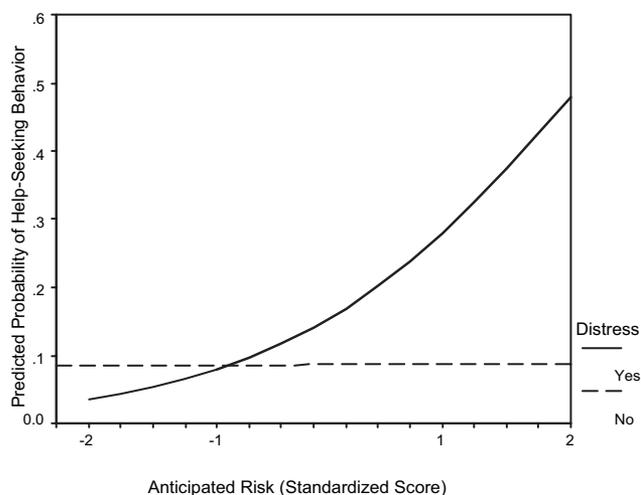


Figure 3. Interaction effect of anticipated risk and distressing experience. Distress = distressing experience. Solid line indicates a yes response; stippled line indicates a no response.

ated outcome(s) of deciding to disclose emotional issues to a counselor showed associations with participants' actual help-seeking behavior. Although there have been only a few studies in which anticipated outcomes have been measured directly, such as perceived utility or risks, one's perception of the anticipated risks of self-disclosing emotions to a counselor were a predictor for those having experienced a distressing event. These results, therefore, build on Study 1 by further supporting the idea that positive and negative outcome expectations, and in particular the anticipated outcomes of expressing emotion to a counselor, seem to be salient in one's decision to seek professional help. Similarly, the fact that the anticipated risks were more directly predictive of behavior than was anticipated utility or comfort talking about distress supports the assertion of Ajzen and Fishbein (1980) that different factors may have different salience in a decision-making process.

The results of Study 2 also help to clarify the findings of previous studies regarding psychological distress. For example, Study 1 and other recent studies (i.e., Kelly & Achter, 1995; Vogel & Wester, 2003) have revealed that measures of general distress do not consistently predict help seeking. It is further suggested in Study 2 that having experienced a distressing event, in and unto itself, is not a clear predictor of someone seeking help but that it may be the interaction between the anticipated outcomes (i.e., the risks of talking about an emotional issue) and the experience of a specific distressing event that predicts help-seeking behavior. In this study, for those who had experienced a distressing event, anticipated risks significantly predicted the probability of help seeking. However, for those who had not experienced a distressing event, anticipated risk did not significantly predict the probability of help seeking. This is consistent with the assertion of some researchers who suggested that it is the increased pain associated with a specific problem (Norcross & Prochaska, 1986) and the possible latent concerns about expressing that pain that are associated with seeking help (Kushner & Sher, 1989). A study by Kushner and Sher (1989), for example, found that psychological distress was positively related to both one's fears about seeking

treatment and to the likelihood of seeking treatment, leading the authors to conclude that concerns about "treatment and psychological distress need to be considered together rather than independently insofar as they relate to service seeking" (Kushner & Sher, 1989, p. 256).

Despite the strengths of Study 2 (i.e., measuring actual behavior), several limitations should be mentioned. First, a potential limitation is the 54.7% return rate. Although the participants were similar on most measured characteristics, they were slightly different in their comfort with self-disclosure, and potential differences between those who participated at Times 1 and 2 may lessen the generalizability of the findings. Another limitation is that our assessment of the distressing experience was gathered by only one question, which asked about an event that could have occurred either years ago or in the previous week. A better assessment of what a distressing event is, when it occurred, as well as an examination of a wider variety of problems would have been useful. As a result, even though the present findings were largely consistent with predictions, the results should be taken with caution. In addition, although we did a good job of predicting those who did not seek help (100%), we only accurately predicted a small amount of those who sought help (6%). Future research may need to examine the role of additional factors at different stages of the decision-making process (i.e., at several points in time). This type of longitudinal design may further elaborate on why (and when) people decide to seek help when they experience a problem. Finally, it should be noted that although the procedures used allowed for more gathering of information about individuals' help-seeking behavior, they did not allow for direct causal relationships to be identified.

### General Discussion

In all, the results of Study 1 and Study 2 support the need for counselors and other professionals to be aware of how different psychological factors contribute to an individual's decision to seek help. In particular, if we as counselors want to reach out to those in need of services, it seems that we will need to address their attitudes toward counseling. These studies also suggest that to do so, clinicians may need to better inform people both about the nature of counseling (i.e., a safe place to talk about personal or emotional issues) as well as about what happens in counseling and why it is potentially effective. This information may help people to feel more comfortable with self-disclosure and then increase their positive attitude toward help seeking. Those conducting outreach programs may also want to directly talk about certain psychological factors, such as the social stigma associated with seeking counseling, and concerns people have regarding the utility and risks of seeking help. Joyce, Diffenbacher, Greene, and Sorokin (1984), for example, have suggested that community-based discussion and education groups could be developed to address barriers to obtaining appropriate treatment. At the very least, these outreach programs would increase the public's contact with counselors, and, at best, they would help increase the positive attitudes of help seeking, lessen the negative aspects of social norms and anticipated risks, and reduce social stigma. Additionally, help seeking is increased when people see the problem they are dealing with as more common (Snyder & Ingram, 1983), thus normalizing issues may help overcome certain barriers (i.e., social stigma). Media advertisements could provide information about frequency

of disorder or symptoms, provide information about the benefits of therapy, and possibly improve positive outcome expectations about seeking help (Wills & DePaulo, 1991). Self-help materials could also be developed that would provide information about mental health concerns, normalize problems, and lessen anticipated fears.

One limitation of these results is their reliance on college students, which may limit the generalizability of the results. The use of college students, however, should have been a more stringent test, as those who are younger and have more education are most likely to seek treatment (Gurin, Veroff, & Feld, 1960) and thus may be the least likely to experience concerns about seeking help. As a result, we would expect the role of these factors to, if anything, be stronger for other populations. Another limitation is the reliance on self-reports. Both the measures assessed and the information gathered about whether participants had sought help (see Study 2) were gathered from participants. Although it is unlikely that people would lie about whether they sought help or forget they had sought help over a few months, it is possible that some misreporting occurred.

In all, these studies confirm Snowden, Collinge, and Runkle's (1982) assertion that

the question of why potential clients do not become actual clients is considerably more complicated than is often recognized. Behind any potential episode of professional help is a background of perceptions, judgments, and actions, all moving the person toward or away from contact with services. (p. 281)

We may need to continue to take these complicated factors into account if we are to further understand the reason behind why people do and do not seek help. Future research may need to develop and test better models that take into account diverse factors such as the messages received from one's culture, gender socialization, social networks, and community networks if we are to fully understand why people seek help. Future research may also want to further investigate possible temporal changes in help-seeking decisions. The present study showed a relationship between certain psychological factors and future help seeking, which was an important first step; however, we did not assess how possible psychological factors change over time. Kushner and Sher (1991), specifically, suggested that people's positive and negative expectations about seeking treatment are not static but change in "nature, intensity, and effect" (p. 200) depending on where the person is in his or her decision making. This is an important direction, particularly given our finding that distress did not moderate the relationship between attitudes and intent. Future research should consider exploring how different factors may become more salient or relevant at different times in the person's decision-making process (Kushner & Sher, 1991).

### References

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice Hall.
- Amato, P. R., & Bradshaw, R. (1985). An exploratory study of people's reasons for delaying or avoiding help-seeking. *Australian Psychologist*, 20, 21-31.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in

- practice: A review and recommended two-step approach. *Psychological Bulletin*, 103, 411–423.
- Andrews, G., Issakidis, C., & Carter, G. (2001). Shortfall in mental health service utilization. *British Journal of Psychiatry*, 179, 417–425.
- Bayer, J. K., & Peay, M. Y. (1997). Predicting intentions to seek help from professional mental health services. *Australian and New Zealand Journal of Psychiatry*, 31, 504–513.
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York: Wiley.
- Carlton, P. A., & Deane, F. P. (2000). Impact of attitudes and suicidal ideation on adolescents' intentions to seek professional help. *Journal of Adolescence*, 23, 35–45.
- Cash, T. F., Begley, P. J., McCown, D. A., & Weise, B. C. (1975). When counselors are heard but not seen: Initial impact of physical attractiveness. *Journal of Counseling Psychology*, 22, 273–279.
- Cepeda-Benito, A., & Short, P. (1998). Self-concealment, avoidance of psychological services, and perceived likelihood of seeking professional help. *Journal of Counseling Psychology*, 45, 58–64.
- Ciarrochi, J. V., & Deane, F. P. (2001). Emotional competence and willingness to seek help from professional and nonprofessional sources. *British Journal of Guidance and Counseling*, 29, 233–246.
- Codd, R. T., III, & Cohen, B. N. (2003). Predicting college student intention to seek help for alcohol abuse. *Journal of Social & Clinical Psychology*, 22, 168–191.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analyses for the behavioral sciences* (3rd ed.). Mahwah, NJ: Erlbaum.
- Cramer, K. M. (1999). Psychological antecedents to help-seeking behavior: A reanalysis using path modeling structures. *Journal of Counseling Psychology*, 46, 381–387.
- Cramer, K. M., & Barry, J. E. (1997). Psychometric properties and confirmatory factor analysis of the Self-Concealment Scale. *Personality and Individual Differences*, 27, 629–637.
- Cutrona, C. E., & Russell, D. W. (1987). The provisions of social relationships and adaptations to stress. *Advances in Personal Relationships*, 1, 37–67.
- Deane, F. P., & Chamberlain, K. (1994). Treatment fearfulness and distress as predictors of professional psychological help-seeking. *British Journal of Guidance and Counseling*, 22, 207–217.
- Deane, F. P., Leathem, J., & Spicer, J. (1992). Clinical norms, reliability and validity for the Hopkins Symptom Checklist-21. *Australian Journal of Psychology*, 44, 21–25.
- Deane, F. P., Skogstad, P., & Williams, M. W. (1999). Impact of attitudes, ethnicity and quality of prior therapy on New Zealand male prisoners' intentions to seek professional psychological help. *International Journal for the Advancement of Counseling*, 21, 55–67.
- Deane, F. P., & Todd, D. M. (1996). Attitudes and intentions to seek professional psychological help for personal problems or suicidal thinking. *Journal of College Student Psychotherapy*, 10, 45–59.
- Depaulo, B. M., & Fisher, J. D. (1981). Too tuned-out to take: The role of nonverbal sensitivity in help-seeking. *Personality and Social Psychology Bulletin*, 7, 201–205.
- Derogatis, L. R., Lipman, R. S., Richels, K., Uhlenhuth, E. H., & Covi, L. (1974). The Hopkins Symptom Checklist (HSCL): A self-report symptom inventory. *Behavioral Science*, 18, 1–15.
- Efron, B., & Tibshirani, R. (1993). *An introduction to the bootstrap*. New York: Chapman & Hall/CRC.
- Fischer, E. H., & Farina, A. (1995). Attitudes toward seeking professional psychological help: A shortened form and considerations for research. *Journal of College Student Development*, 36, 368–373.
- Fischer, E. H., & Turner, J. L. (1970). Development and research utility of an attitude scale. *Journal of Consulting and Clinical Psychology*, 35, 79–90.
- Frazer, P. A., Tix, A. P., & Barron, K. E. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology*, 51, 115–134.
- Friedson, E. (1961). *Patient's view of medical practice*. New York: Russell Sage Foundation.
- Goodman, S. H., Sewell, D. R., & Jampol, R. C. (1984). On going to the counselor: Contributions of life stress and social supports to the decision to seek psychological counseling. *Journal of Counseling Psychology*, 31, 306–313.
- Green, D. E., Walkey, F. H., McCormick, I. A., & Taylor, A. J. (1988). Development and evaluation of a 21-item version of the Hopkins Symptom Checklist with New Zealand and United States respondents. *Australian Journal of Psychology*, 40, 61–70.
- Greenson, R. (1987). Resistance analysis. In D. S. Milman & G. D. Goldman (Eds.), *Techniques of working with resistance* (pp. 133–166). Northvale, NJ: Jason Aronson.
- Gurin, G., Veroff, J., & Feld, S. (1960). *Americans view their mental health*. New York: Basic Books.
- Halgin, R. P., Weaver, D. D., Edell, W. S., & Spencer, P. G. (1987). Relation of depression and help-seeking history to attitudes toward seeking professional psychological help. *Journal of Counseling Psychology*, 34, 177–185.
- Hill, C. E., Thompson, B. J., Cogar, M. C., & Denman, D. W. (1993). Beneath the surface of long-term therapy: Therapist and client report of their own and each other's covert processes. *Journal of Counseling Psychology*, 40, 278–287.
- Hinson, J. A., & Swanson, J. L. (1993). Willingness to seek help as a function of self-disclosure and problem severity. *Journal of Counseling & Development*, 71, 465–470.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1–55.
- Joyce, K. J., Diffenbacher, G., Greene, J., & Sorokin, Y. (1984). Internal and external barriers to obtaining prenatal care. *Social Work in Health Care*, 9, 89–96.
- Kahn, J. H., & Hessling, R. M. (2001). Measuring the tendency to conceal versus disclose psychological distress. *Journal of Social and Clinical Psychology*, 20, 41–65.
- Kahn, J. H., Lamb, D. H., Champion, D., Eberle, J. A., & Schoen, K. A. (2002). Disclosing versus concealing distressing information: Linking self-reported tendencies to situational behavior. *Journal of Research in Personality*, 36, 531–538.
- Kelly, A. E. (1998). Client secret keeping in outpatient therapy. *Journal of Counseling Psychology*, 45, 50–57.
- Kelly, A. E., & Achter, J. A. (1995). Self-concealment and attitudes toward counseling in university students. *Journal of Counseling Psychology*, 42, 40–46.
- Komiya, N., Good, G. E., & Sherrod, N. B. (2000). Emotional openness as a predictor of college students' attitudes toward seeking psychological help. *Journal of Counseling Psychology*, 47, 138–143.
- Kushner, M. G., & Sher, K. J. (1989). Fears of psychological treatment and its relation to mental health service avoidance. *Professional Psychology: Research and Practice*, 20, 251–257.
- Kushner, M. G., & Sher, K. J. (1991). The relation of treatment fearfulness and psychological service utilization: An overview. *Professional Psychology: Research and Practice*, 20, 196–203.
- Larson, D. G., & Chastain, R. L. (1990). Self-concealment: Conceptualization, measurement, and health implications. *Journal of Social and Clinical Psychology*, 9, 439–455.
- Lopez, F. G., Melendez, M. C., Sauer, E. M., Berger, E., & Wyssmann, J. (1998). Internal working models, self-reported problems, and help-seeking attitudes among college students. *Journal of Counseling Psychology*, 45, 79–83.
- MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7, 83–104.

- Mechanic, D. (1975). Sociocultural and social psychological factors affecting personal responses of psychological disorder. *Journal of Health and Social Behavior, 16*, 393–405.
- Meissen, G., Warren, M. L., & Kendall, M. (1996). An assessment of college student willingness to use self-help groups. *Journal of College Student Development, 37*, 448–456.
- Miller, L. C., Berg, J. H., & Archer, R. L. (1983). Openers: Individuals who elicit intimate self-disclosure. *Journal of Personality and Social Psychology, 44*, 1234–1244.
- Norcross, J. C., & Prochaska, J. O. (1986). The psychological distress and self-change of psychologists, counselors, and laypersons. *Psychotherapy, 23*, 102–114.
- Phillips, M. A., & Murrell, S. A. (1994). Impact of psychological and physical health, stressful events, and social support on subsequent mental health help seeking among older adults. *Journal of Consulting and Clinical Psychology, 62*, 270–275.
- Pipes, R. B., Schwarz, R., & Crouch, P. (1985). Measuring client fears. *Journal of Consulting and Clinical Psychology, 53*, 933–934.
- Rickwood, D. J., & Braithwaite, V. A. (1994). Social-psychological factors affecting help-seeking for emotional problems. *Social Science and Medicine, 39*, 563–572.
- Russell, D. W., Kahn, J. H., Spoth, R., & Altmaier, E. M. (1998). Analyzing data from experimental studies: A latent variable structural equation modeling approach. *Journal of Counseling Psychology, 45*, 18–29.
- Satorra, A., & Bentler, P. M. (1988). Scaling corrections for chi-square statistics in covariance structure analysis. In *American Statistical Association 1988 proceedings of the business and economic section* (pp. 308–313). Alexandria, VA: American Statistical Association.
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and non-experimental studies: New procedures and recommendations. *Psychological Methods, 7*, 422–445.
- Sibicky, M., & Dovidio, J. F. (1986). Stigma of psychological therapy: Stereotypes, interpersonal reactions, and the self-fulfilling prophecy. *Journal of Counseling Psychology, 33*, 148–154.
- Snowden, L. R., Collinge, W. B., & Runkle, M. C. (1982). Help seeking and underservice. In L. R. Snowden (Ed.), *Reaching the underserved: Mental health needs of neglected populations* (pp. 281–298). Beverly Hills, CA: Sage.
- Snyder, C. R., & Ingram, R. E. (1983). “Company motives the miserable”: The impact of consensus information on help seeking for psychological problems. *Journal of Personality and Social Psychology, 45*, 1118–1126.
- Takeuchi, D. T., Leaf, P. J., & Kuo, H. (1988). Ethnic differences in the perception of barriers to help-seeking. *Social Psychiatry & Psychiatric Epidemiology, 23*, 273–280.
- Vogel, D. L., & Wester, S. R. (2003). To seek help or not to seek help: The risks of self-disclosure. *Journal of Counseling Psychology, 50*, 351–361.
- Wills, T. A. (1992). The helping process in the context of personal relationships. In S. Spacapan & S. Oskamp (Eds.), *Helping and being helped* (pp. 17–48). Newbury Park, CA: Sage.
- Wills, T. A., & DePaulo, B. A. (1991). Interpersonal analysis of the help-seeking process. In C. R. Snyder & D. R. Forsyth (Eds.), *Handbook of social and clinical psychology: The health perspective. Pergamon Press general psychology series* (Vol. 162, pp. 350–375). Elmsford, NY: Pergamon Press.

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