Title: Assessing the utility of the willingness/prototype model in predicting help-seeking decisions

Key words: prototype willingness, help seeking, counseling, reasoned action

Note: This article may not exactly replicate the final version published in the APA journal. It is not the copy of record. Please use the DOI link on my website to access the PDF through your institution, allowing full access to the published type-set article.

This copy obtained from http://drjosephhammer.com

APA-Style Citation:


Joseph H. Hammer  
Department of Psychology  
Iowa State University  
W112 Lagomarcino Hall  
Ames, IA 50014  
hammer@iastate.com

David L. Vogel  
Department of Psychology  
Iowa State University  
W112 Lagomarcino Hall  
Ames, IA 50014  
dvogel@iastate.com
Abstract

Prior research on professional psychological help-seeking behavior has operated on the assumption that the decision to seek help is based on intentional and reasoned processes. However, research on the dual-process Prototype/Willingness Model (PWM; Gerrard, Gibbons, Houlihan, Stock, & Pomery, 2008) suggests health-related decisions may also involve social reaction processes that influence one’s spontaneous willingness (rather than planned intention) to seek help, given conducive circumstances. The present study utilized structural equation modeling to evaluate the ability of these two information-processing pathways (i.e., the reasoned pathway and the social reaction pathway) to predict help-seeking decisions among 182 college students currently experiencing clinical levels of psychological distress. Results indicated that when both pathways were modeled simultaneously, only the social reaction pathway independently accounted for significant variance in help-seeking decisions. These findings argue for the utility of the PWM framework in the context of professional psychological help seeking and hold implications for future counseling psychology research, prevention, and practice.

Key words: prototype willingness, help seeking, counseling, reasoned action
Assessing the Utility of the Prototype/Willingness Model in Predicting Help-Seeking Decisions

Much of the prior research on professional psychological help-seeking decisions has operated on the assumption that the decision to seek help is based on intentional and reasoned cognitive processes (e.g., Bayer & Peay, 1997; Codd & Cohen, 2003; Demyan & Anderson, 2012; Mo & Mak, 2009; Schomerus, Matschinger, & Angermeyer, 2009; Skogstad, Deane, & Spicer, 2006). However, most decisions are not determined solely by systematic reasoning, but also by reactionary processes (Gerrard, Gibbons, Houlihan, Stock, & Pomery, 2008). In fact, for many decisions, heuristics and immediate impulses may exert a larger influence over the likelihood of engaging in an action. For example, while reasoned-choice models tend to explain around 31% of the variance in health-related behavior (Armitage & Connor, 2001), models that assess both reasoned and reactionary processes can account for up as much as 79% of the variance in behavior (Gerrard et al., 2002). Therefore, the purpose of the present study was to determine whether accounting for reactionary processes in addition to reasoned processes enhances the prediction of professional psychological help-seeking decisions among a sample of individuals currently experiencing clinical levels of psychological distress.

Predicting Help Seeking with Reasoned-Choice Models

Current models of help-seeking behavior have largely relied on theories such as the Theory of Reasoned Action (TRA: Azjen & Fishbein, 1980), which assert that the most important determinant of behavior is the intention to seek help. Intentions are conscious plans to exert effort to perform a behavior. Intention is determined by belief-based constructs such as attitudes (positive or negative evaluations of performing a behavior) and subjective norms (perceived social pressure from important others to perform or not perform a behavior). Therefore, these reasoned-choice models predict that people are more likely to intend to seek help if they have positive attitudes towards seeking help and perceive that important others approve of seeking help. Consistent with this, studies that have applied reasoned-choice models to the prediction of help seeking have accounted for between 12% and 61% of the variance in help-seeking intentions through the assessment of factors such as attitudes and social norms.
(Bayer & Peay, 1997; Codd & Cohen, 2003; Mo & Mak, 2009; Schomerus et al., 2009; Skogstad et al., 2006).

One limitation of this previous work, however, is that these studies relied on the assumption that help-seeking intentions are the most important determinant of help-seeking decisions. This assumption is not surprising, given that past meta-analyses of reasoned-choice models have found that intention has, in general, a moderate-large correlation with other prospective health-related behaviors (e.g., mean correlation = .42; McEachan, Conner, Taylor, & Lawton, 2011). However, the few studies that have directly examined the role of intention in predicting help-seeking behavior have only been able to account for 3% to 5% of the variance (Wilson, Deane, Ciarrochi, & Rickwood, 2005; Wilson, Deane, Marshall, & Dalley, 2008). The limited amount of variance accounted for may be due, on one hand, to the fact that these studies did not focus on sampling psychologically-distressed individuals, for whom the relationship between intention and behavior may be strongest. On the other hand, non-reasoned processes may play a more important role than planned intention in predicting help seeking. Consistent with this, researchers have shown that for many health-related concerns, dual processes (i.e., both reasoned processes and reactionary processes) best account for behavior (e.g., Gerrard, Gibbons, Brody, Murry, Cleveland, & Wills, 2006; Gibbons, Gerrard, Ouelette, & Burzette, 1998; Gibbons, Gerrard, Lune, Wills, Brody, & Conger, 2004). One of the most researched dual-process models used to understand health-related behaviors is the Prototype/Willingness Model (PWM; Gerrard et al., 2008). In seeking to account for the influence of both reasoned and reactionary processes on professional help-seeking decision-making, the current study utilized the PWM theory.

**Prototype/Willingness Model**

The PWM extends previous reasoned-choice models, which suggest that there is only a single information-processing pathway to behavior (e.g., via intentions to engage in the behavior), by proposing two different information-processing pathways to a behavior. The first is a deliberative, *reasoned* path that impacts behavior through intention, akin to the pathway
described by reasoned-choice models (attitudes and social norms predict intention, which in turn predicts behavior; see dotted path line in Figure 1). The second, however, is an image-based social reaction path that impacts behavior through willingness. The social reaction path involves reactive, spontaneous decision-making rather than calculating deliberation—a willingness (rather than planned intention) to engage in the behavior, given the right set of circumstances. Willingness is defined as one’s openness to behavioral opportunity (Gibbons, Houlihan, & Gerrard, 2009). Importantly, willingness emphasizes situational and social influences on behavior (Gibbons, Gerrard, Blanton, & Russell, 1998). For example, a female college student struggling with depression may have no specific plans to seek counseling at the campus counseling center, but when the opportunity presents itself she may be willing to go (e.g., academic advisor informs the student she will be forced to leave the university if her grades do not improve, and upon seeing the student’s duress, gives her the phone number for the counseling center).

Demonstrating the distinction between the reasoned and social reaction paths, researchers in the area of health behaviors have found that willingness is correlated with, but distinct from, intention. In fact, willingness has consistently been found to independently predict health risk behaviors (e.g., smoking, drug use, condom use) among adolescents and college students over and above the influence of intention, and is sometimes a better predictor of these behaviors than intention (see Gibbons et al., 2009). Willingness has also been shown to be a better predictor of behavioral decisions than intentions when a behavior is (a) unfamiliar (Gibbons, Gerrard, Reimer, & Pomery, 2006; Pomery, Gibbons, Reis-Bergan, & Gerrard, 2009), (b) socially undesirable (Gibbons, Gerrard, & Lane, 2003; Gibbons et al., 1998), or (c) involves emotional processes. For example, past research has found that rational models do a poorer job of explaining behaviors that have a significant affective component (Eiser, Eiser, & Pauwels, 1993). Given that seeking counseling (a) is a novel activity for many individuals (Olfson & Marcus, 2010), (b) carries public and self-stigma (Vogel, Wade, & Haake, 2006), and (c) invokes fear and
discomfort related to emotion (Kushner & Sher, 1989; Wills & Gibbons, 2009), willingness may be an important factor in the help-seeking process.

Willingness may also be an even more important factor than intentions in the help-seeking process as the potential negative consequences of help seeking (e.g., public and self-stigmatization) may dissuade potential treatment seekers from ever deliberately forming a planned intention to seek help. Because willingness involves little pre-contemplation of a behavior’s negative consequences (Gibbons et al., 1998), it is possible that assessing willingness may capture the real possibility of seeking help, given the right set of circumstances, in a way that intention could not. In the vignette of the female college student struggling with depression described previously, the student was presented with a conducive situation (i.e., academic advisor presenting her with the phone number for the counseling center) in which her willingness to admit her suffering and see a counselor may have been more likely to account for her subsequent help-seeking behavior than any intention she had prior to the anxiety-inducing meeting with the advisor. The student could very well have had no previous intention to seek professional psychological help, perhaps due to a lack of awareness of the services provided by the campus counseling center.

More generally, while it may be true that some individuals are capable of noticing the initial warning signs of mental illness and thus have the opportunity to form the intention to seek professional help in advance, many individuals have not had the opportunity to develop such mindful attunement to the trajectory of their own psychological wellness, and thus will only make an immediate decision to seek help once they experience an acute stressor, such as a trauma, that was unanticipated. In these cases, there is likely a lack of a clear, pre-planned intention. Rather, seeking counseling becomes a sudden and unanticipated consideration. In such situations, one’s willingness is arguably a more robust predictor of the decision to seek help. Thus, by assessing both the willingness-mediated social reaction path and the intention-mediated reasoned path, the PWM may be better able to account for help-seeking decisions, especially those born of unanticipated moments of crisis.
Prototype. Like intention, willingness is theorized to be influenced by attitudes and social norms. However, the prototype one associates with a given behavior (e.g., the image of the typical person who seeks help from a psychologist) is thought to be an additional influence on one’s willingness to engage in that behavior (see solid path line in Figure 1). Prototype theory, originally pioneered by Rosch (1973, 1975) and extended by Fehr (1988, 1993), has previously been used to identify the most common characteristics ascribed to members of a given category (e.g., “lonely people”; Horowitz, French, & Anderson, 1982). In this theory, prototype has been defined as “a cognitive concept that provides a way of organizing data, in the minds of individuals or groups of people, into the clearest or best example of a concept” (Rosch, 1973) and more specifically “an ordered list of features that informants judge to be the most important associates for describing some facet of [a] concept’s associative meaning” (Horowitz & Turan, 2008, p. 1057). In the context of the PWM, a prototype is defined as a mental representation of the characteristics of the “type of person” who engages in a given behavior (Gibbons & Gerrard, 1995). People maintain such prototypes in their long-term memory, especially for behaviors that are uncommon or risky like help seeking (Skowronski & Carlston, 1989). There is a social consensus around these prototypes (Snortum, Kremer, & Berger, 1987), and the PWM states that people perceive that if they perform the behavior in question, they will acquire the image associated with that behavior (Gerrard, Gibbons, Stock, Vande Lune, & Cleveland, 2005). The PWM goes on to posit that, depending on the perceived favorability of the prototype, people will be motivated to either distance themselves from the prototype or match it, for self-consistency and self-enhancement reasons (Dunning, Perie, & Story, 1991; Niedenthal, Cantor, & Kihlstrom, 1985). Furthermore, people realize that there are social consequences for engaging in the behavior if peers discover them: peers will identify them as members of the group the prototype represents (e.g., people who seek help from a psychologist; Gerrard, Gibbons, Brody, Murry, Cleveland, & Wills, 2006). Indeed, willingness to perform a behavior can be contingent on peers’ anticipated reaction to such behavior (Pescosolido & Boyer, 1999). Thus, it is reasonable to suggest that the more negative an individual’s “help-seeker prototype” is, the less willing the
individual will be to seek professional help when given the opportunity. In support of these suppositions, a number of studies have demonstrated that unfavorable prototypes are associated with less willingness to engage in the corresponding behavior (e.g., Gibbons & Gerrard, 1995; Gerrard, Gibbons, Reis-Bergan, et al., 2002; Blanton, Gibbons, Gerrard, Conger, & Smith, 1997) and that decreasing the favorability of prototypes reduces willingness (Blanton et al., 2001; Gibbons, Gerrard, Lane, Mahler, & Kulik, 2005). Thus, modeling the social reaction path (prototype -> willingness -> behavior) may help account for the influence of image-based and/or reactionary processes involved in the decision to seek help.

**Current Study**

Reasoned-choice models have not yet demonstrated the ability to account for more than 3% to 5% of the variance in help-seeking decision-making, and rely on the untested assumption that intention to seek help is the most important predictor of help-seeking decision-making. In contrast, the PWM accounts for two information-processing pathways (i.e., the reasoned path and social reaction path), and has received considerable empirical support in predicting certain health behaviors (Gibbons et al., 2009). Therefore, the purpose of the current study was to use a Structural Equation Modeling (SEM) approach to evaluate the utility of the two information-processing pathways (see Figure 1) in the context of professional psychological help seeking among those currently experiencing clinical levels of psychological distress. This examination allows for a clear understanding of whether or not willingness to seek help deserves to be considered an essential proximal determinant of help-seeking decision making, alongside intention to seek help. Past studies (e.g., Bayer & Peay, 1997; Codd & Cohen, 2003; Mo & Mak, 2009; Schomerus et al., 2009; Skogstad et al., 2006) have tended to focus on just the reasoned path and most often tested their help-seeking models on samples whose members are experiencing minimal psychological distress (and thus have no compelling reason to form intentions to seek help or engage in help-seeking behavior). Focusing on participants who reported experiencing clinical levels of psychological distress, and who could therefore benefit from seeking help, can help increase confidence in the study’s findings.
Undertaking such an examination is essential, as extant empirical attempts to account for the determinants of professional psychological help-seeking decisions have largely rested on the unsubstantiated assumption that restricting models to deliberative reasoning processes is sufficient and appropriate. Furthermore, the majority of interventions designed to increase help-seeking behavior have focused on increasing intentions by addressing attitudes or social norms around help seeking (e.g., Buckley & Malouff, 2005; Esters, Cooker, & Ittenbach, 1998; Kendra, Cattaneo, Mohr, 2012). However, if the present investigation was to find that the decision to seek help is also influenced by image-based social reaction processes, this could help identify important additional targets for future help-seeking interventions. For example, interventions targeting prototype and/or willingness have demonstrated efficacy in changing a variety of health-related behaviors, such as smoking (Brody et al., 2004), sun-protection (Mahler, Kulik, Gibbons, Gerrard, & Harrell, 2003), and underage drinking (Gerrard, Gibbons, Brody, Murry, Cleveland, & Wills, 2006). Furthermore, because willingness has been found to be more malleable than intention (Reimer, 2009), interventions may find more success in increasing help-seeking behavior by specifically attending to social reaction path constructs. Thus, there are significant theoretical and clinical implications for this investigation.

In line with the PWM, we hypothesized that the both information-processing pathways would explain a significant portion of the variance in help-seeking decisions. Based on prior PWM theory and research, it was anticipated that (a) more positive attitudes and social norms would be significantly associated with greater intention, (b) more positive attitudes, social norms, and prototypes would be significantly associated with greater willingness, and (c) greater intention and willingness would both be independently associated with a greater likelihood of choosing to seek help.

**Method**

**Participants**

Participants were 182 (73 men, 109 women) undergraduate students attending a large Midwestern University. Mean age for the sample was 19.98 (SD = 3.19). Participants were
predominantly European American (n = 144 [79%]; 10 African Americans [6%]; 10 Asian Americans [6%]; 7 Latin Americans [4%]; 11 other [6%]), which matched the demographic makeup of the university student body. Seventy-eight (43%) were first-year students, 49 (27%) were sophomores, 31 (17%) were juniors, 20 (11%) were seniors, and 4 (2%) were beyond their fourth year.

Measures

Help-Seeking Decisions. We were unable to find a published measure assessing professional psychological help-seeking decision-making. Therefore, to assess this construct, participants were asked to make actual decisions about four help-seeking related behaviors by responding “yes” or “no” to four written questions (see Appendix for items). Participants completed these questions at the end of the survey and were then provided with information on how to follow through with these decisions (e.g., how to set up an appointment to see a psychologist at the University Counseling Service) during debriefing. By adding the number of “yes” responses to these four questions for each participant, a total score ranging from 0 to 4 was created. A higher total score indicates higher help-seeking decisions. The Cronbach alpha score was .77 in the present study.

Intention. Intention assesses an individual’s conscious plan to exert effort to perform a behavior. In describing how to assess intentions in the context of reasoned choice models, Azjen (2002, revised 2006) suggested using multiple items that describe the intention to engage in a specific action (e.g., seeking help), with a specific target (e.g., from a psychologist), and during a specific time frame (e.g., in the next 3 months). Following these suggestions in the current study we used the recommended wording (e.g., “I would intend to seek help from a psychologist in the next 3 months”) with six items rated from 1 (strongly disagree) to 7 (strongly agree; or an equivalent anchor). Higher scores indicated higher levels of intention. Intention measures that follow Azjen’s practices have previously demonstrated evidence of reliability ($\alpha = .97$; Mo & Mak, 2009) and validity (e.g., significant positive associations between intention and both attitudes and subjective norms around seeking professional psychological help; Bayer & Peay,
PROTOTYPE/WILLINGNESS

1997; Christopher, Skillman, Kirkhart, & D’Souza, 2006; Mo & Mak, 2009; Schomerus et al., 2009). The Cronbach alpha score was .97 in the present study.

**Willingness.** Willingness assesses an individual’s openness to engaging in a behavior given a spontaneous opportunity to do so. To assess willingness, the creators of the PWM (Gibbons, Gerrad, & Lane, 2003) have suggested creating scenarios that reflect the behavior of interest (for examples of scenario creation for other behaviors, see Hyde & White, 2010, and Pomery et al., 2009) and assessing willingness to engage in the behavior during that scenario. Willingness to engage in help-seeking behavior was assessed using seven items related to four created help-seeking scenarios (see Appendix). Participants read each scenario and rated the likelihood that they would perform each response option, scored 1 (*not at all willing*) to 7 (*very willing*), such that higher scores indicate higher levels of willingness. Willingness, as measured via scenarios in prior PWM studies, has demonstrated evidence of reliability (α’s > .80; Andrews, Hampson, Barckley, Gerrad, & Gibbons, 2008; Pomery et al., 2009; Zimmerman & Sieverding, 2010) and validity (e.g., ability to account for unique variance in a variety of behaviors independent of intention; Gerrard, et al., 2006; Gibbons, Gerrard, Vande Lune, et al., 2004; Spijkerman, van den Eijnden, & Engels, 2005; Thornton, Gibbons, & Gerrard, 2002; van Empelen & Kok, 2006). The Cronbach alpha score was .90 in the present study.

**Attitudes.** Attitudes towards seeking professional psychological help were assessed using the 10-item Attitudes Towards Seeking Professional Psychological Help Scale (ATSPPHS-SF; Fischer & Farina, 1995). Items are answered on a 4-point scale, from 0 (*disagree*) to 3 (*agree*). An example item is “The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.” Five items are reverse scored such that higher scores indicate more positive attitudes. Internal consistency of this scale has ranged from .79 to .87 (Fischer & Farina, 1995; Vogel, Heimerdinger-Edwards, Hammer, & Hubbard, 2011). Correlations with intentions to seek help (*r* = .50; Vogel et al., 2007) and prior use of professional help for a problem (*r* = .39; Fischer & Farina, 1995) support the scale’s validity. Cronbach alpha score was .79 in the present study.
Subjective Norms. Subjective norms regarding seeking help were assessed with 10 items constructed according to guidelines outlined by Azjen (2002, revised 2006). Azjen recommended creating injunctive norm items with a stem (e.g., “The people in my life whose opinions I value…”) followed by an injunctive (rating from 1 [disapprove] to 7 [approve], or an equivalent anchor) followed by the specific action, target, and time frame. He also recommended including descriptive norm items (e.g., “The people in my life whose opinions I value [engage in this behavior]”, rated from 1 [strongly disagree] to 7 [strongly agree], or an equivalent anchor). In the current study, items were thus rated from 1 (strongly disagree) to 7 (strongly agree; or an equivalent anchor), with higher scores indicating more positive subjective norms. Six items assessed injunctive norms (e.g., “People who mean something to me would think I should seek help from a psychologist in the next 3 months”) and four items assessed descriptive norms (e.g., “People who mean something to me, if they were dealing with this issue, would seek help from a psychologist in the next 3 months”). Measures of subjective norms related to seeking help following Azjen’s guidelines have previously demonstrated evidence of reliability (α = .85; Mo & Mak, 2009) and validity (e.g., significant positive association between subjective norms and intentions to seek help; e.g., Bayer & Peay, 1997; Christopher, Skillman, Kirkhart, & D’Souza, 2006; Mo & Mak, 2009; Schomerus et al., 2009). The Cronbach alpha score was .94 in the present study.

Prototype. Prototype assesses the favorability of an individual’s image of the typical person who seeks help from a psychologist. Different procedures for generating and evaluating prototype measures exist (e.g., Fehr, 1988; Hofsess & Tracey, 2010; Rosch, 1973). Given our focus on the PWM, we modeled our approach on the extant published work of other researchers utilizing the PWM framework. In particular, we followed the guidelines of Gerrits and colleagues (2009) for assessing prototype favorability. Participants were given a brief description of what a prototype is (adapted from Gibbons, Gerrard, & McCoy, 1995) and asked to “imagine a typical person who seeks help from a psychologist.” Participants were then asked to indicate to what degree 10 different adjectives depicting personal characteristics (stressed,
troubled, depressed, upset, struggling, unhappy, emotional, worried, distressed, anxious) described this typical help seeker, using a 7-point scale of 1 (not at all) to 7 (extremely). Responses were reverse-coded so that a higher total score indicated a more positive (i.e., favorable) prototype (e.g., “the typical help seeker is not at all “upset” or “emotional”).

Following the procedures set by Gerrits et al. (2009) to generate a prototype evaluation measure which captured the characteristics popularly associated with the typical person who engages in the target behavior (i.e., seekers of professional psychological help), we conducted two pilot studies. These pilot studies used undergraduate participants who did not participate in the main study. In line with prior investigations (e.g., Fehr, 1988; Turan & Horowitz, 2007), the pilot study sampled from the same population as the main study to help ensure that characteristics salient to the main study participants would be captured by the prototype evaluation measure. First, we presented 53 undergraduate students (mean age of 19.6 years; 60% female; 77% European American, 6% African American, 4% Asian American, 6% other, 8% did not indicate race) the following instructions: “When trying to describe someone, people generally use characteristics of that person. For example, if you describe someone who always gets good grades, you might say that this person is smart, serious, and studious. Now, if we would ask you to describe a person who seeks help from a psychologist, which characteristics would you use?” Participants were asked to provide 10 such characteristics. Participants generated a mean of 7.23 (SD = 2.43) characteristics. After combining different grammatical forms of the same word (Fehr, 1988), 160 characteristics remained, including characteristics that align with those previously documented by past research on perceptions of mental illness and professional psychological help-seeking (e.g., dependent, emotional, helpless, indecisive, lonely, weak; King, Newton, Osterlund, & Baber, 1973; Oppenheimer & Miller, 1988; Ryan, Robinson, & Hausmann, 2001; Sibicky & Dovidio, 1986).

After reading the same instructions, a separate sample of 47 undergraduate students (mean age of 19.8 years; 62% female; 85% European American, 2% African American, 4% Asian American, 4% Latino, 2% other, 2% did not indicate race) was given a list of the 50
characteristics most frequently mentioned by the first group (see Table 1), and asked to rate these characteristics on their level of descriptiveness for a typical help seeker, using a 7-point scale of 1 (not at all) to 7 (very much so). The inter-rater reliability of the ratings of the 50 items, calculated using an (2,k) intraclass correlation coefficient was .92, suggesting a high degree of similarity among participants in rating these characteristics. To create a prototype measure that balanced adequate reliability and content validity with minimal participant burden due to length, the 10 characteristics rated as most descriptive (listed above) by this second group—and thus considered to be the most relevant for the assessment of the content of help seeker prototypes—were chosen to form the help-seeker prototype measure used in the main study. Given that prototypes can be either multidimensional or unidimensional, we examined the factor structure of the prototype measure. When subjected to a Principal Axis Factor Analysis without rotation, these 10 items all loaded on a single factor (Eigenvalue of 5.34) that captured 53% of the total variance. This suggests that the help-seeker prototype, as operationalized in the present study, can be treated as unidimensional. Measures of tailored prototypes have previously demonstrated evidence of reliability ($\alpha$s > .81; Gerrits et al., 2009) and validity (e.g., significant positive association between prototype favorability and both [a] willingness to engage in the behavior and [b] future engagement in the behavior; Gerrits et al., 2009; Spijkerman, van den Einjden, & Engels, 2005). The Cronbach alpha score for this scale was .92 in the present study.

**Psychological distress.** Current level of psychological distress (i.e., in the last week) was assessed using the 14-item General Population – Clinical Outcomes in Routine Evaluation measure (GP-CORE; Sinclair, Barkham, Evans, Connell, & Audin, 2005). The GP-CORE was adapted for use outside of clinical settings from the widely used CORE-Outcome Measure (CORE-OM; Evans et al., 2000), and covers the domains of well-being, problems/symptoms, and functioning. Items are answered on a 5-point scale, from 0 (not at all) to 4 (most or all of the time). Sinclair et al. (2005) reported that the GP-CORE demonstrated good internal consistency (as from .82 to .90) and test-retest reliability ($r = .91$); showed discriminant validity for self-reported help-seeking and clinical vs. non-clinical status; and demonstrated convergent
validity against the CORE-OM and other measures of psychological state such as the Beck Depression Inventory-II \((r = .84; \text{Beck et al., 1996})\) and Brief Symptoms Inventory \((r = .75; \text{Derogatis & Melisaratos, 1983})\). The Cronbach alpha score was .86 in total sample.

**Procedure**

Participants were recruited through the psychology department’s subject pool, which consisted of students majoring in various fields of study who were enrolled in an introductory psychology or communication studies course. Participants were invited to confidentially complete the survey online and received course credit for their participation. After providing informed consent, participants were presented with the following instructions to ensure that they responded to the questions in regard to current distress: “We’ve all had times when we’ve felt depressed, anxious, or worried about something. Think about a time when you struggled with one of the most intense, significant, and psychologically difficult issues in your life (e.g., a significant loss, a traumatic event, a dark period, etc…). Take a minute to think about that time.” Participants were asked to briefly describe the issue, state the last time they dealt with this issue, and to answer intention, willingness, attitude, and subjective norm items as if they were currently experiencing this issue. Because all participants reported experiencing clinically significant levels of distress, this procedure just ensured that the distress was currently salient (i.e., as opposed to a week ago) in their minds as they answered the survey questions and thus all participants would likely be answering the questions based on current perceptions. After completing those items, participants filled out the prototype and demographic measures (e.g., gender, year in school). At the end of the survey, participants were asked the four help-seeking decision questions. Lastly, participants were presented with the debriefing page.

**Preliminary Data Screening**

In order to sample a relevant population—those experiencing clinical levels of psychological distress and who therefore may benefit from seeking services—we retained only those participants \((n = 198)\) from a larger sample \((N = 518)\) who met the published clinical cut-off scores for undergraduate student men \((1.49)\) and women \((1.63)\) on the GP-CORE (Sinclair et
al., 2005). We then removed data from one participant who was missing substantial data (i.e., more than 20% of all items). To reduce threats to the validity of individuals’ responses due to random or inattentive responding (Kurtz & Parish, 2001), we also interspersed throughout the survey three items asking participants to select a certain response (e.g., “Please select ‘strongly agree’ for this item”). Data from those individuals (n = 15) who failed to complete more than one of these items correctly was removed. In the retained sample (n = 182), missing data ranged from a low of .5% for both attitudes and prototype to a high of 6.0% for social norms. Little’s missing completely at random (MCAR) test was performed and found to be non-significant (p = .28, indicating the missing cases were not significantly different from the non-missing cases. In accordance with the practices suggested by Schlomer, Bauman, & Card (2010), missing data were handled with full information maximum likelihood (FIML) estimation by MPLUS (Version 6.11), which was used for all model analyses. In regards to normality, no variables exceeded the cutoffs of 3 and 10 for high skewness and kurtosis values, respectively (Kline, 2005; Weston & Gore, 2006).

To check for univariate outliers we examined the z-scores for each of the measures (Tabachnick & Fidell, 2001). No outliers were found for the intention, willingness, attitudes, and subjective norm scales. In two cases on the prototype scale and four cases on help-seeking decisions scale there were outliers at p < .001 (i.e. z-scores above 3.29). Because the variables did not exceed the skewness and kurtosis cutoffs state previously and, upon examination, each of these cases was found to be a legitimate case (rather than a product of a coding error or sampling error, for example), winsorization (i.e. changing outliers to the next most extreme score) rather than removal was chosen as the most appropriate method of addressing these outliers (Barnett & Lewis, 1994; Erceg-Hurn & Mirosevich, 2008; Weston, 2006). Winsorization “preserves the information that a case had among the highest (or lowest) values in a distribution but protects against some of the harmful effects of outliers” (Reifman & Keyton, 2010, p. 1637). To check for multivariate outliers, we examined Mahalanobis distances among the variables (Tabachnick
& Fidell, 2001). No multivariate outliers were detected at \( p < .001 \). After all data screening procedures were completed, the final sample size used in subsequent analyses was \( N = 182 \).

**Results**

**Descriptive Statistics**

Table 2 shows means, standard deviations, and intercorrelations of the measures tested in this study. Examination of the zero-order correlations between variables showed that attitudes and subjective norms were positively associated with both intentions and willingness; prototype was negatively associated with willingness; and both intention and willingness were positively associated with help-seeking decisions.

**Item Parceling**

Before conducting our latent models, we first created three observed indicators (parcels) for the latent variables (intention, willingness, attitudes, subjective norms, prototype) with the exception of two parcels for help-seeking decisions. Parceling generally improves model fit because of the limited number and better distribution of indicators. We created parcels by factor analyzing each scale separately and then assigning items to parcels in pairs so that each parcel represented the construct to an equal degree (see Russell, Kahn, Spoth, & Altmaier, 1998).

**Fit Indices**

We used the Full Information Maximum Likelihood (FIML) estimation in MPLUS for all model analyses. Model fit was evaluated using the chi-square goodness-of-fit test \( (\chi^2) \), Root Mean Square Error of Approximation (RMSEA; < .06), Comparative Fit Index (CFI; > .95), Tucker-Lewis Index (TLI; > .95) and Standard Root Mean Square Residual (SRMR; < .08; Martens, 2005).

**Measurement Model**

Before testing the structural model, we first used confirmatory factor analysis to ensure the data fit the measurement model (Martens, 2005). The measurement model appeared to show a good fit to the data, \( \chi^2 (104, N = 182) = 159.63, p < .001; \) RMSEA = .05 [90% CI of .037, .070]; CFI = .98; TLI = .97; SRMR = .05. The parcels loadings on the latent variables were all
significant at \( p < .001 \) (full correlation tables and factor loadings data for the parcels can be requested from the authors).

**Structural Model**

Model 1, the hypothesized dual-process structural model, provided a good fit of the data, \( \chi^2 (108, N = 182) = 164.99, p < .001; \) RMSEA = .05 [90% CI of .037, .070]; CFI = .98; TLI = .97; SRMR = .05. Parameter estimates for the hypothesized model are displayed in Figure 2.

Consistent with the hypothesis that more positive attitudes and social norms would be significantly associated with greater intention, attitudes (\( \beta = .41 \)) and social norms (\( \beta = .51 \)) significantly predicted intention. Furthermore, consistent with the PWM and the hypothesis that more positive attitudes and social norms would be significantly associated with greater willingness, attitudes (\( \beta = .40 \)) and subjective norms (\( \beta = .20 \)) both significantly predicted willingness in the expected direction. However, inconsistent with the PWM and the hypothesis that a more positive prototype would be associated with greater willingness, a more positive prototype was significantly associated (\( \beta = -.20 \)) with lesser willingness. Interestingly, willingness (\( \beta = .32 \)), but not intention (\( \beta = .04, p = .67 \)), significantly predicted help-seeking decisions. Thus, willingness was the key mediator and not intentions. Overall, 58% of the variance in intention, 32% of the variance in willingness, and 11% of the variance in help-seeking decisions was accounted for in the model.

We used a bootstrapping procedure (Shrout & Bolger, 2002) to examine the significance of the indirect effects. MPLUS was instructed to make 10,000 bootstrap draws of the data and output bias-corrected bootstrap confidence intervals for the direct and indirect effects (Mallinckrodt, Abraham, Wei, & Russell, 2006). Consistent with the PWM, attitudes (\( \beta = .13, 95\% \) CI [.052, .201]) and social norms (\( \beta = .06, 95\% \) CI [.020, .108]), had a significant indirect link (i.e., did not include zero) with help-seeking decisions through the mediating role of willingness. However, while prototype also had a significant indirect link (\( \beta = -.06, 95\% \) CI [-.019, -.108]) through willingness, the association was the opposite of what was anticipated. In addition, attitudes (\( \beta = .02, 95\% \) CI [.047, .080]), and social norms (\( \beta = .02, 95\% \) CI [-.056,
were not significantly linked (i.e., did include zero) with help-seeking decisions through intention.

Following recommendations by Martens (2005) we examined two alternative structural models to help clarify the role of intentions and willingness as mediators in the model. In the hypothesized model, intention and willingness were considered to simultaneously mediate the effects of attitudes, social norms, and prototype on help-seeking decisions. However, it is possible that willingness and intentions act instead as sequential mediators (i.e., willingness -> intention -> help-seeking decisions or intention -> willingness -> help-seeking decisions). To account for these possibilities, two alternative models were examined.

Model 2 was the Willingness First model where attitudes, social norms, and prototype were specified to predict willingness, which in turn was specified to predict intention, which in turn was specified to predict help-seeking decisions. Given that reasoned choice models posit intention to be the immediate antecedent of behavior, it may be that attitudes, social norms, and prototype could impact one’s baseline willingness to seek help, but that this willingness is merely a precursor to one’s ultimate intention to seek help (e.g., the two paths from attitudes and social norms to intention, as well as the path from willingness to help-seeking decisions were removed, and a direct path from willingness to intentions was specified). This Willingness First model provided a poor fit for the data, \(\chi^2 (111, N = 182) = 264.50, p < .001\); RMSEA = .09 [90% CI of .074, .101]; CFI = .94; TLI = .93; SRMR = .12, and the fit was significantly worse than that of the dual mediation model, \(\Delta \chi^2 (3) = 99.51, p < .001\).

Model 3 was the Intention First model where attitudes and social norms were specified to predict intention, which in turn (alongside prototype) was specified to predict willingness, which in turn was specified to predict help-seeking decisions. It may be that people have a set level of intention to seek help, influenced by their attitudes and social norms, and when placed in a spontaneous situation where they have the opportunity to seek help, their intention (and prototype) is what determines their willingness to engage in such opportune help seeking behavior (e.g., the two paths from attitudes and social norms to willingness, as well as the path
from intention to help-seeking decisions were removed, and a direct path from intention to willingness was specified). The Intention First model did provide an acceptable fit for the data, $\chi^2 (111, N = 182) = 173.41, p < .001; \text{RMSEA} = .06 [90\% \text{ CI of } .039, .071]; \text{CFI} = .98; \text{TLI} = .97; \text{SRMR} = .06$, but the fit was significantly worse than that of the hypothesized dual-mediation model, $\Delta \chi^2 (3) = 8.42, p = .04$. Thus, these results indicate that the hypothesized dual-mediation model best accounted for the relationship among these help-seeking variables.

**Discussion**

**Willingness is Key**

The main purpose of this study was to evaluate the utility of the two information-processing pathways (see Figure 1) described by the Prototype/Willingness Model (PWM), in the context of professional psychological help seeking among those currently experiencing clinical levels of psychological distress. Results indicated that the social reaction path—in which attitudes towards seeking help, social norms around seeking help, and prototype of the typical help seeker are linked with help-seeking decisions through the mediating role of willingness—individually explained a significant portion of the variance in help-seeking decisions beyond that explained by the reasoned path. In fact, whereas both intention and willingness demonstrated significant bivariate correlations with help-seeking decisions, when both paths were simultaneously modeled, intention failed to account for unique variance in help-seeking decisions. The indirect effects of attitudes, social norms, and prototype were likewise fully accounted for by the social reaction path.

Past research on help seeking has largely rested on the assumption that accounting for reasoned processes alone, which exert influence through the planned intention to seek help, is sufficient for the prediction of help-seeking decisions. However, the present results suggest that, when social reaction processes are modeled parallel to reasoned processes, the social reaction path may better account for variance in help-seeking decisions. These findings are consistent with investigations of other health-related behaviors, which found willingness to be an independent, and oftentimes superior predictor to intentions (see Gibbons et al., 2009). In
summary, the present results support the use of the dual-process Prototype/Willingness Model in future counseling psychology research on professional psychological help seeking. As anticipated, these results also align with prior research finding that more positive attitudes and social norms predict both greater intention and willingness to seek help (e.g., Gibbons et al., 1998; Hyde & White, 2009; McEachan, Conner, Taylor, & Lawton, 2011).

**Tailored Help SeekerPrototypes Function in a Unique Way**

Interestingly, while participants’ help-seeker prototype ratings were found to significantly predict willingness, the direction of the effect was opposite of what was hypothesized: those who self-reported more positive (i.e., favorable) prototypes indicated lesser willingness to seek help. Past research on other health behaviors has generally found that unfavorable prototypes are associated with less willingness (e.g., Blanton et al., 2001; Blanton et al., 1997; Gibbons & Gerrard, 1995; Gerrard et al., 2002), and theorized that this is a product of people’s desire to distance themselves from this unfavorable prototype, both in their own and in others’ eyes. However, the present results suggest that—at least when the favorability of the help-seeker prototype is evaluated with a self-report measure tailored specifically to help seeking such as was used in the current study—help-seeking prototypes may function in a unique way.

One explanation for the current findings derives from an analysis of the ten items that pilot study participants rated as most descriptive of the typical help seeker, and thus were chosen for the tailored prototype measure. While it is true that these adjectives can be fairly described as “unfavorable,” they may also be considered generally accurate descriptors of individuals who seek counseling. If individuals are not stressed, struggling, and unhappy, then they are unlikely to desire or require counseling. Thus, when people agree that these symptoms accurately describe the help-seeker prototype, they are effectively acknowledging that the typical help seeker does indeed struggle with genuine mental health concerns. Though prototypes characterized by adjectives such as ‘stressed’ and ‘struggling’ are unfavorable, they may be seen as alterable states that therapy can effectively address. In turn, however, it may be that other aspects of the help-seeker prototype not directly assessed in the current study could be viewed as
more trait-like and even more unfavorable. For example, in previous work on stigma, it has been found that help seekers are described as weak, lazy, or lack willpower (Vogel et al., 2006) and that holding such beliefs about help seekers is associated with lesser use of services (e.g., Eisenberg, Down, Golberstein, & Zivin, 2009). Thus, in the context of professional psychological help seeking, individuals who perceive help seekers as possessing unfavorable traits rather than unfavorable states may be more likely to want to distance themselves from the help-seeker prototype. This explanation could reasonably account for the inverse relationship between prototype favorability and willingness to seek help found in this study. To clarify the nature of this relationship, future research should also include a generic adjective prototype measure (see Gibbons et al., 1998). Such a measure could include negative descriptors more akin to characterological or trait weaknesses (e.g., careless, dull, self-centered). Help-seeker prototype favorability, when assessed with a generic adjective measure that assesses traits such as ‘weak’ or ‘lazy’, may correlate positively with willingness to seek help, as would be expected by prior PWM research on other health behaviors.

**Addressing Current Limitations through Future Research**

The results of the current study should be considered in light of its limitations. First, by asking participants to make actual decisions about four help-seeking related behaviors at the end of the protocol, participants were placed in a situation that one could argue is conducive to help seeking. Given that the construct of willingness focuses on individuals’ spontaneous willingness, putting participants in a potentially conducive situation may have increased the correlation between willingness and help-seeking decisions. However, one could make the argument that the correlation between intention and help-seeking decisions would also have increased, as those participants who intended to seek help could be even more likely to follow through and make the decision to seek help when they were presented with an additional chance to act on that intention. Regardless, measuring help-seeking behavior over time with long-term follow-up assessments would effectively address this issue and allow for more precise conclusions about the relative importance of reasoned and social reaction paths. Such
longitudinal designs could also assist in the confirmation of the order of the variables suggested by the PWM in the professional psychological help-seeking context. As with all cross-sectional studies using SEM approaches, additional research examining the order of the relationships is needed. However, there exists good evidence to anticipate that the theorized ordering of these constructs would hold in the help-seeking domain, as the PWM model has been confirmed in both longitudinal and experimental designs in the context of other health behaviors (e.g., Blanton, VandenEijnden, Buunk, Gibbons, Gerrard, & Bakker, 2001; Gibbons, Gerrard, Lane, Mahler, & Kulik, 2005; Mahler, Kulik, Gerrard, & Gibbons, 2006; Todd & Mullan, 2011).

Also, counseling psychologists could examine how incorporating social reaction processes into other reasoned-choice models, such as the Transtheoretical model (i.e., Stages of Change model; DiClemente & Prochaska, 1982), could provide an enhanced conceptual framework for understanding help-seeking decision-making. Researchers have suggested that individuals in the preparation stage are deciding to seek therapy and researching what services are available (i.e., have full intention to seek help) while those in the prior contemplation stage are perceiving the need for help and are consciously contemplating the (dis)advantages of entering therapy (i.e., have less intention to seek help; Dearing & Twaragowski, 2010). However, a recent study of 3,844 students who sought help at campus counseling centers found that 61% were in a stage of contemplation at entry (Krumrei, Netwon, & Kim, 2010). Given the results of the present study, is possible that such individuals, while lacking full intention to seek help, were willing to do so, given a conducive context. However, future research should examine this directly.

One improvement of the current study over previous research was that it limited participation to those who reported clinical levels of psychological distress. However, future research could further expand on this by seeking to recruit samples that meet official criteria for mental disorders, as the strength of each pathway may differ as a function of the particular class or type disorder. Future research could also sample from diverse populations to determine how the reasoned and social reaction paths function in predicting help-seeking behavior among
individuals from a variety of backgrounds. For example, given that the experience of first-year students is unique, differences in willingness to seek help may be evident between first-year and later-year students. In addition, Wills and Gibbons (2009) point out that racial/ethnic differences in seeking professional psychological help are not currently well understood, and posit that there may be a racial component to the prototype of the typical help seeker. Specifically, if the typical help seeker is perceived to be European American, people of color may perceive that the help seeker prototype is “not like me” and thus feel less willing to seek counseling (p. 443). This possibility deserves empirical investigation by counseling psychologists. Importantly, there is evidence to suggest that the results may be similar across groups, as studies examining the PWM have been consistent in predicting other health-related behaviors such as substance use, early-onset sexual behavior, and alcohol use among some minority groups (e.g., African American adolescents; Cleveland, Gibbons, Gerrad, Pomery, & Brody, 2005; Gerrard, Gibbons, Stock, Vande Lune, Cleveland, 2005; Gibbons, Gerrard, Cleveland, Wills, & Brody, 2004).

To further establish the validity of the prototype measure, future research could embed characteristics *not* indicative of a help seeker in the prototype measure (to test divergent validity; Hofsess & Tracey, 2010; Turan & Horowitz, 2007) and participants could complete information processing tasks designed to discriminate between highly prototypical characteristics and less prototypical characteristics (to confirm the expected internal structure of the prototype; Fehr, 1988; Horowitz, 2008). As an alternative to the present study’s operationalization of prototype based on the PWM, future research could also operationalize prototype as an index of the degree to which individual participants’ prototype ratings across both highly and low prototypic characteristics match the mean prototype ratings of the overall sample (i.e., the person’s template-prototype match) and examine the ability of this index to predict a given individual’s willingness to seek help (e.g., Hofsess & Tracey, 2010; Turan & Horowitz, 2007).

Lastly, future research should account for participants’ prior experience with counseling, which has previously been linked with more positive attitudes and stronger intention to seek help (Fischer & Farina, 1995; Wilson et al., 2005). Prior help seeking may help account for the
counterintuitive findings with regard to prototype: those who have (not) sought help may (not) appreciate the intense emotional states experienced by people in counseling.

**Implications for Prevention and Practice**

The present results suggest that professional psychological help-seeking behavior may be viewed as a result of more than just deliberate, reasoned decision making. While it is certainly true that some individuals form an intention to seek help months in advance of actually performing the action, seeking help may be a more spontaneous behavior for many. Namely, some may only seek help once they find themselves in a “conducive” circumstance: experiencing un-ignorable emotional distress and informed of a viable source of professional psychological support. Thus, interventions designed by counseling psychologists to increase help-seeking behavior may benefit from targeting both reasoned and social reaction processes. Specifically, interventions should seek not only to improve attitudes toward seeking help and increase the perception that seeking help is normative among peers, but also address the content of help seeker prototypes. Interventions that improve prototype favorability have been found to increase the frequency of the corresponding health-related behavior (e.g., sunscreen use among male road maintenance crews; Stock et al., 2008). Thus, interventions with the aim to increase the favorability of the help-seeker prototype by replacing stigmatizing labels (e.g., lazy, weak-willed) with more accurate descriptors may similarly increase help-seeking behavior. These results therefore highlight the need for counseling psychologists to examine the efficacy of such interventions and whether any resultant change in help-seeking behavior is mediated by increased willingness.

Furthermore, the present results suggest that creating conducive help-seeking circumstances, by working to make distressed individuals aware of professional psychological help seeking services that can be taken advantage of spontaneously, may help maximize the likelihood of service use. Because a percentage of the population does not intend to seek help in advance, but is willing to make the spontaneous decision to utilize services in specific circumstances, it is essential that services that can accommodate immediate treatment are
available to clients. The more barriers to immediate service that exist (e.g., extensive paperwork, waiting lists), the more likely it is that someone’s initial, spontaneous motivation to seek help may wane as the moment of crisis passes. Thus, to facilitate help-seeking behavior born of spontaneous willingness, rather than planned intention, counseling psychologists may consider ways to make immediate care available to the populations they serve. For example, workshops, outreach presentations, and biofeedback centers could be very important. Because researchers have shown that stigma and other fears are reduced after a single session of treatment (Wade, Post, Cornish, Vogel, & Tucker, 2011), such immediate care options could increase the future likelihood of someone returning for other types of care (i.e., individual treatment) and could both meet the immediate demands of the individual and broader demands on an agency or counselor. In addition, once a client is in a session, to decrease dropout counselors may also find it beneficial to assess and address clients’ help-seeking prototype early on in counseling, as these prototypes may potentially influence treatment adherence and premature termination.

Conclusions

In summary, the present study suggests that accounting for people’s help-seeker prototypes and willingness to seek help holds promise for increasing counseling psychologists’ ability to predict professional psychological help-seeking behavior. While past research has often assumed that the decision to seek help is influenced primarily by deliberate reasoning processes, the present findings provide evidence that social reaction processes may heavily influence this decision as well. Future research should verify and expand the utility of the PWM in the context of professional psychological help seeking.
Because only 3.2% of the U.S. population seeks professional help for mental health concerns in a given year (Olfson & Marcus, 2010), when conducting a study which retrospectively measures help seeking behavior, researchers may encounter statistical prediction difficulties due to extremely unbalanced cell sizes: so few participants fall into the “sought help” cell that logistic regression analyses tend to underestimate the probability of seeking help, due to the technique’s bias towards the majority class (King & Zeng, 2001). Therefore, the present study sought to build upon prior research by operationalizing help-seeking decisions as one’s direct assent to engage in professional psychological help-seeking behavior. This written decision to assent to seek help is a closer proxy of help-seeking behavior than is one’s future intention or general willingness to seek help. Thus, measuring help-seeking decisions in this way allowed the present study to significantly extend prior research by conducting a first test of the respective predictive powers of the reasoned and social reaction pathways.

Given that the decision to set up an appointment with a psychologist can be construed as a “stronger” help-seeking decision than the decision to view the counseling center website, we re-ran all analyses using a weighted-responses version of this measure (i.e., saying “yes” to the website counted at 1 point, saying “yes” to the workshop counted as 2 points, saying “yes” to talking with representative counted as 3 points, and saying “yes” to setting up an appointment counted as 4 points; responses across the four questions added together for total score with a range of 0 to 10). Using this alternative weighted-responses version in lieu of the original simpler version led to similar statistical results, and thus the original version was retained.

The Cronbach alphas for each of the created parcels were as follows: .43 and .56 for help-seeking decisions; .89, .90, and .92 for intention; .66, .68, and .76 for willingness; .49,
.54, and .64 for attitudes; .83, .81, and .82 for social norms; and .82, .77, and .80 for prototype.

4 We examined the possibility that this unexpected direction of association was due to the degree of emotional distress of the sample. Specifically, we thought it possible that participants who indicated that the prototype adjectives are accurate descriptors of the typical help seeker may (a) be more likely to see a similarity between their own experience and that of the typical help seeker as the perceived severity of their own symptoms increased and therefore (b) to be willing to seek help in a conducive situation. To examine this possibility, we tested a model in which participants’ psychological distress moderated the relationship between prototype and willingness. Results indicated that psychological distress did not moderate this relationship, and thus this possibility was not considered in the present discussion.
References


way to maximize the accuracy and power of your research. *The American Psychologist, 63*,
591–601.

health on rural adolescents' conceptions of mental illness and attitudes about seeking help. *Adolescence, 33*,
469-476.

Evans, C., Mellor-Clark, J., Margison, F., Bardham, M., Audin, K., Connell, J., & McGrath, G.
247–255.

557–579.

shortened form and considerations for research. *Journal of College Student Development, 36*,
368-373.

Gerrard, M., Gibbons, F. X., Brody, G. H., Murry, V. M., Cleveland, M. J., & Wills, T. A.

process approach to health risk decision making: The prototype willingness model.

Gerrard, M., Gibbons, F. X., Reis-Bergan, M., Trudeau, L., Vande Lune, L., & Buunk, B. P.
(2002). Inhibitory effects of drinker and nondrinker prototypes on adolescent alcohol

of smokers and willingness to smoke among African American pre-adolescents: An
application of the prototype/willingness model of adolescent health risk behavior to smoking initiation. *Pediatric Psychology, 30*, 305-318.


Table 1.

*Mean Descriptiveness Ratings of the Characteristics of a Typical Help Seeker*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stressed &lt;sup&gt;a&lt;/sup&gt;</td>
<td>5.34</td>
<td>1.42</td>
</tr>
<tr>
<td>Troubled &lt;sup&gt;a&lt;/sup&gt;</td>
<td>5.17</td>
<td>1.63</td>
</tr>
<tr>
<td>Depressed &lt;sup&gt;a&lt;/sup&gt;</td>
<td>5.15</td>
<td>1.82</td>
</tr>
<tr>
<td>Upset &lt;sup&gt;a&lt;/sup&gt;</td>
<td>5.13</td>
<td>1.53</td>
</tr>
<tr>
<td>Struggling &lt;sup&gt;a&lt;/sup&gt;</td>
<td>5.11</td>
<td>1.66</td>
</tr>
<tr>
<td>Unhappy &lt;sup&gt;a&lt;/sup&gt;</td>
<td>5.06</td>
<td>1.58</td>
</tr>
<tr>
<td>Emotional &lt;sup&gt;a&lt;/sup&gt;</td>
<td>5.06</td>
<td>1.51</td>
</tr>
<tr>
<td>Worried &lt;sup&gt;a&lt;/sup&gt;</td>
<td>5.04</td>
<td>1.08</td>
</tr>
<tr>
<td>Distressed &lt;sup&gt;a&lt;/sup&gt;</td>
<td>4.94</td>
<td>1.63</td>
</tr>
<tr>
<td>Anxious &lt;sup&gt;a&lt;/sup&gt;</td>
<td>4.89</td>
<td>1.49</td>
</tr>
<tr>
<td>Hurt</td>
<td>4.87</td>
<td>1.44</td>
</tr>
<tr>
<td>In need of help</td>
<td>4.83</td>
<td>2.13</td>
</tr>
<tr>
<td>Confused</td>
<td>4.79</td>
<td>1.47</td>
</tr>
<tr>
<td>Sad</td>
<td>4.74</td>
<td>1.52</td>
</tr>
<tr>
<td>Lost</td>
<td>4.72</td>
<td>1.53</td>
</tr>
<tr>
<td>Honest</td>
<td>4.72</td>
<td>1.31</td>
</tr>
<tr>
<td>Emotionally-unstable</td>
<td>4.70</td>
<td>1.98</td>
</tr>
<tr>
<td>Willing</td>
<td>4.62</td>
<td>1.47</td>
</tr>
<tr>
<td>Low self-esteem</td>
<td>4.53</td>
<td>1.52</td>
</tr>
<tr>
<td>Nervous</td>
<td>4.53</td>
<td>1.44</td>
</tr>
<tr>
<td>Open</td>
<td>4.53</td>
<td>1.46</td>
</tr>
<tr>
<td>Uncertain</td>
<td>4.49</td>
<td>1.73</td>
</tr>
<tr>
<td>Proactive</td>
<td>4.49</td>
<td>1.40</td>
</tr>
<tr>
<td>Trait</td>
<td>Rating</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>------------------</td>
<td>--------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Lonely</td>
<td>4.47</td>
<td>1.59</td>
</tr>
<tr>
<td>Alone</td>
<td>4.45</td>
<td>1.75</td>
</tr>
<tr>
<td>Moody</td>
<td>4.45</td>
<td>1.32</td>
</tr>
<tr>
<td>Unstable</td>
<td>4.45</td>
<td>1.72</td>
</tr>
<tr>
<td>Scared</td>
<td>4.40</td>
<td>1.41</td>
</tr>
<tr>
<td>Angry</td>
<td>4.35</td>
<td>1.54</td>
</tr>
<tr>
<td>Indecisive</td>
<td>4.33</td>
<td>1.17</td>
</tr>
<tr>
<td>Motivated</td>
<td>4.33</td>
<td>1.63</td>
</tr>
<tr>
<td>Self-aware</td>
<td>4.32</td>
<td>1.68</td>
</tr>
<tr>
<td>Needy</td>
<td>4.30</td>
<td>1.55</td>
</tr>
<tr>
<td>Smart</td>
<td>4.28</td>
<td>1.36</td>
</tr>
<tr>
<td>Aware</td>
<td>4.21</td>
<td>1.60</td>
</tr>
<tr>
<td>Problematic</td>
<td>4.19</td>
<td>1.64</td>
</tr>
<tr>
<td>Serious</td>
<td>4.09</td>
<td>1.26</td>
</tr>
<tr>
<td>Tired</td>
<td>4.06</td>
<td>1.52</td>
</tr>
<tr>
<td>Helpless</td>
<td>4.04</td>
<td>1.64</td>
</tr>
<tr>
<td>Friendly</td>
<td>4.00</td>
<td>1.41</td>
</tr>
<tr>
<td>Dependent</td>
<td>3.94</td>
<td>1.55</td>
</tr>
<tr>
<td>Unhealthy</td>
<td>3.89</td>
<td>1.46</td>
</tr>
<tr>
<td>Pessimistic</td>
<td>3.72</td>
<td>1.51</td>
</tr>
<tr>
<td>Weak</td>
<td>3.64</td>
<td>1.59</td>
</tr>
<tr>
<td>Quiet</td>
<td>3.60</td>
<td>1.33</td>
</tr>
<tr>
<td>Crazy</td>
<td>3.59</td>
<td>2.08</td>
</tr>
<tr>
<td>Shy</td>
<td>3.35</td>
<td>1.25</td>
</tr>
<tr>
<td>Attention-seeking</td>
<td>3.21</td>
<td>1.43</td>
</tr>
<tr>
<td>Weird</td>
<td>3.02</td>
<td>1.76</td>
</tr>
<tr>
<td>Happy</td>
<td>2.91</td>
<td>1.63</td>
</tr>
</tbody>
</table>

This item was one of the ten items rated most descriptive by pilot study participants, and thus retained for the Prototype measure.
Table 2.

Means, Standard Deviations, and Intercorrelations among Main Measures (N = 218)

<table>
<thead>
<tr>
<th>Instruments</th>
<th>M</th>
<th>(SD)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Help-Seeking Decisions</td>
<td>0.36</td>
<td>(0.86)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Intention</td>
<td>3.07</td>
<td>(1.79)</td>
<td>.21</td>
<td>**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Willingness</td>
<td>3.99</td>
<td>(1.42)</td>
<td>.29</td>
<td>**</td>
<td>.53</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td>4. Attitudes</td>
<td>1.51</td>
<td>(0.46)</td>
<td>.17</td>
<td>*</td>
<td>.58</td>
<td>**</td>
<td>.47</td>
</tr>
<tr>
<td>5. Subjective Norms</td>
<td>3.58</td>
<td>(1.41)</td>
<td>.05</td>
<td>.64</td>
<td>**</td>
<td>.40</td>
<td>**</td>
</tr>
<tr>
<td>6. Prototype</td>
<td>2.70</td>
<td>(0.98)</td>
<td>-.14</td>
<td>-.07</td>
<td>-.24</td>
<td>**</td>
<td>-.04</td>
</tr>
</tbody>
</table>

* p < .05,  ** p < .01
Figure 1. The hypothesized PWM model. Dotted lines represent the reasoned action path, while solid lines represent the social reaction path.
Figure 2. The structural model. N = 182. All values are standardized. $\chi^2 (108, N = 182) = 164.99, p < .001$; RMSEA = .05 [90% CI of .037, .070]; CFI = .98; TLI = .97; SRMR = .05.

* $p < .05$, ** $p < .01$, *** $p < .001$
Appendix

Measures Used in the Present Study

Help-Seeking Decisions

- Would you like to be directed to the University Student Counseling Service website, where you can learn more about seeking help from a psychologist?
- Would you be interested in signing up for an informational workshop on campus about what it is like to seek help from a psychologist?
- Would you like to set up a time to talk with a University Student Counseling Service representative to see if seeing a psychologist is right for you? Counseling there is free and confidential.
- Would you like to set up an appointment to see a psychologist at the University Student Counseling Service? Counseling there is free and confidential.

Intention

- I would intend to seek help from a psychologist in the next 3 months.
- I would try to seek help from a psychologist in the next 3 months.
- I would plan to seek help from a psychologist in the next 3 months.
- I would make an effort to seek help from a psychologist in the next 3 months.
- I would want to seek help from a psychologist in the next 3 months.
- I would seek help from a psychologist in the next 3 months.

Willingness to Engage In Help-Seeking Behavior Scale

- ‘Suppose you were walking through the Student Services Building sometime in the next 3 months and you see a National Mental Health Screening Day booth set up in one of the private offices, where psychologists are doing confidential, free on-the-spot mental health screenings. You have two hours before your next class, so you have plenty of time available.’ How willing would you be to: (a) walk over to the booth to learn more about the mental health screening and (b) participate in a mental health screening?
- ‘Suppose you stop by the campus counseling center sometime in the next 3 months to get advice on how to help a friend of yours who is feeling really depressed about a recent breakup. While you are there, you find
out that you can confidentially meet with one of the psychologists (for free), who happens to have an opening that hour. No one will know you met with the psychologist. You have two hours before your next class, so you have plenty of time available.’ How willing would you be to: (a) meet with the psychologist for a one-time session to speak about the issue you’re dealing with and (b) return in subsequent weeks for additional sessions to continue speaking about the issue you’re dealing with?

• ‘Suppose you are at the Memorial Union sometime in the next 3 months and find out that a 30-minute mental health workshop relevant to the issue you’re dealing with is about to start. You have two hours before your next class, so you have plenty of time available. No one, except the fellow attendees, will know you attended the workshop.’ How willing would you be to: (a) ask the workshop facilitator, who is available to answer questions before the workshop, for additional information about the workshop and (b) attend the workshop?

• ‘Suppose you go to visit your new academic advisor sometime in the next 3 months to talk about academic concerns. The advisor seems like a kind and trustworthy person. After talking about your career plans, you tell your advisor that an issue (you don’t go into details) you’ve been struggling with has been impacting your academic performance. The advisor tells you that seeking help from a psychologist may be a good idea, and gives you the number for the campus counseling center.’ How willing would you be to: (a) call the counseling center right after your meeting to set up an appointment with a psychologist?

Social Norms

• Most people who are important to me would think that ___(I should not / I should)____ seek help from a psychologist in the next 3 months.

• Most people who are important to me would expect me to seek help from a psychologist in the next 3 months.

• The people in my life whose opinions I value would ___(disapprove / approve)___ of my seeking help from a psychologist in the next 3 months.

• I would feel under social pressure to seek help from a psychologist in the next 3 months.

• People who mean something to me would think I should seek help from a psychologist in the next 3 months.
• People who are important to me would wish for me to seek help from a psychologist in the next 3 months.

• Most people who are important to me, if they were dealing with this issue, would seek help from a psychologist in the next 3 months.

• The people in my life whose opinions I value, if they were dealing with this issue, would ___(not seek help / seek help)___ from a psychologist in the next 3 months.

• People who mean something to me, if they were dealing with this issue, would seek help from a psychologist in the next 3 months.

• People who are important to me, if they were dealing with this issue, would seek help from a psychologist in the next 3 months.

**Prototype**

Imagine a typical person who seeks help from a psychologist. How would you describe this person using the following characteristics?

• Stressed

• Troubled

• Depressed

• Upset

• Struggling

• Unhappy

• Emotional

• Worried

• Distressed

• Anxious