

Seeking Help in the Shadow of Doubt: The Sensemaking Processes Underlying How Nurses Decide Whom to Ask for Advice

David A. Hofmann

University of North Carolina at Chapel Hill

Zhike Lei

European School of Management and Technology

Adam M. Grant

University of North Carolina at Chapel Hill

Although scholars often assume that individuals seek out experts when they need help, recent research suggests that seeking help from experts can be costly. The authors propose that perceiving potential help providers as accessible or trustworthy can reduce the costs of seeking help and thus encourage individuals to seek help from experts. They further predict that perceptions of potential help providers' expertise, accessibility, and trustworthiness are shaped by their experience, formal roles, and organizational commitment. They investigated their theoretical model in a study of 146 nurses on the front lines of healthcare. They found that the decision to seek out help depends on help-seekers' perceptions of experts' accessibility and trustworthiness, and that these perceptions are predicted by experience, formal roles, and affective organizational commitment. Theoretical and practical implications are discussed.

Keywords: help-seeking, sensemaking, role theory, error management, health care

In the context of complex work and technologies, performance is often fraught with ambiguity, equivocality, and uncertainty, as prespecified procedures and policies frequently do not exist (Faraj & Xiao, 2006; Galbraith, 1977; Geddes, Salyer, & Mark, 1999; Griffin, Neal, & Parker, 2007; Tucker & Edmondson, 2003; Weick, 1990). These informational deficiencies result in questions such as "What's the story here? What does it mean? What do I do next?" These questions motivate the initiation of sensemaking activities, where individuals seek to answer these questions through interpersonal communication (Weick, Sutcliffe, & Obstfeld, 2005). This communication involves engaging others to talk through the situation to help structure the problem and figure out what actions are needed (Maitlis, 2005; Weick et al., 2005). Thus, one critical step in the enactment of sensemaking processes is asking others for help. Indeed, a long history of research suggests that when individuals are confronted with complex situations that are not well understood, they tend to turn to other people for information, input, help, and advice (Allen, 1977; McKnight &

Peet, 2000; Mintzberg, 1973; Pelz & Andrews, 1966; Spath & Buttler, 1996; Urquhart & Crane, 1994).

Traditionally, many researchers have assumed that when in doubt, individuals seek out experts for help (e.g., Morrison & Vancouver, 2000; Nadler, Ellis, & Bar, 2003; Vancouver & Morrison, 1995; Wills & DePaulo, 1993). However, a number of studies have revealed that in the face of complexity and uncertainty, individuals do not always seek out experts (e.g., Capers & Lipton, 1993; Lee, 1997; Van der Vegt, Bunderson, & Oosterhof, 2006). To advance theoretical knowledge about help-seeking and to increase the quality of help that individuals ultimately obtain in practice, we need a clearer understanding of the factors that encourage and discourage seeking help from experts.

The purpose of the current research is to better understand the microprocesses (Weick et al., 2005) that govern whom individuals ask for help, while also gaining insight into the role that broader factors play in this help-seeking process. In a recent review of the help-seeking literature, Bamberger (in press) concluded that current models of help-seeking offer limited predictive validity when applied to the workplace and called for a more comprehensive understanding of the underlying dynamics of help-seeking. In response to this call, we investigate not only how help-seekers' perceptions of potential help providers are related to help-seeking decisions, but also how providers' individual characteristics and work roles may influence the help-seeking process.

As such, our research makes several contributions to organizational and applied psychological literature. Although considerable research has examined the antecedents and consequences of giving help (e.g., Grant & Ashford, 2008; LePine, Erez, & Johnson, 2002; Podsakoff, MacKenzie, Paine, & Bachrach, 2000), there has been much less attention focused on the interpersonal dynamics of help-seeking, even though the majority of helping exchanges are initiated by a specific request for help (Anderson & Williams,

David A. Hofmann and Adam M. Grant, Kenan-Flagler Business School, University of North Carolina at Chapel Hill; Zhike Lei, European School of Management and Technology, Berlin, Germany.

This project was supported by the Robert Wood Johnson Foundation (Grant 51182). In addition, the authors would like to thank Janice Neff for her invaluable assistance and support throughout all phases of the project and Miriam Rogers for her input and advice concerning research in healthcare settings. Lisa Jones-Christensen, Dan McAllister, and Fred Morgeson provided helpful comments on an earlier version of this article. Meg Dietrich also provided invaluable editing assistance.

Correspondence concerning this article should be addressed to David A. Hofmann, Kenan-Flagler Business School (CB-3490), University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-3490. E-mail: dhofmann@unc.edu

1996; Burke, Weir, & Duncan, 1976). Furthermore, the little research that has been done on these interpersonal dynamics has been limited in scope. Specifically, this research has primarily investigated the main effects of interpersonal perceptions, providing limited opportunity to better understand the broader context within which helping exchanges occur (Borgatti & Cross, 2003; Cross, Rice, & Parker, 2001; Morrison & Vancouver, 2000). Our research addresses these gaps by showing how the decision to seek help from experts depends on perceptions of trust and accessibility and how these perceptions, in turn, are shaped by broader individual and work role factors. This more comprehensive view of the help-seeking process provides theoretical and practical insights into how help-seeking can be encouraged in a context in which it is especially critical: the front lines of healthcare.

In healthcare, nurses often encounter uncertainty and complexity (Faraj & Xiao, 2006; Geddes et al., 1999; Tucker & Edmondson, 2003; Weick et al., 2005) and rely on immediate colleagues for additional information, help, advice, or problem-solving input (e.g., McKnight & Peet, 2000; Spath & Buttlar, 1996; Urquhart & Crane, 1994). In many cases, these help-seeking efforts are designed to facilitate sensemaking about complex patient responses and to effectively manage negative consequences resulting from errors and other adverse events. A number of researchers have discussed not only the magnitude of the public health problem created by medical errors (e.g., Bogner, 1994; Kohn, Corrigan, & Donaldson, 2000; Rosenthal & Sutcliffe, 2002; Weick, Sutcliffe, & Obstfeld, 1999) but also the fact that many of these errors are preventable (Leape, 1994; Rosenthal & Sutcliffe, 2002). One way to prevent errors is to ensure that expert help is available to facilitate nurses' sensemaking efforts when they are unsure of how to respond to complex and uncertain situations and to ensure that nurses feel safe in asking for this help. Thus, healthcare represents a natural setting in which to test our hypotheses about the predictors of help-seeking.

Predicting Help-Seeking

Help-seeking refers to the act of asking others for assistance, information, advice, or support (e.g., Lee, 1997). Our focus is on explaining how individuals choose who to seek for help. We propose that the determination of whom to seek out is driven by help-seekers' interpersonal sensemaking processes (Wrz-

esniewski, Dutton, & Debebe, 2003), regarding their perceptions of potential help providers' expertise, trust, and accessibility. We then examine how help-seekers' perceptions of potential providers' expertise, trust, and accessibility are formed by investigating how the characteristics of help providers are likely to shape help-seekers' perceptions. Figure 1 depicts a conceptual model summarizing the specific hypotheses that we develop below.

Help-Seekers' Perceptions of Potential Help Providers

Researchers recognize that help-seeking decisions often involve cost-benefit calculations (Ashford & Cummings, 1983; Lee, 1997, 2002; Morrison, 2002; Morrison & Vancouver, 2000). These cost-benefit calculations are typically based on the goals of reducing uncertainty and preserving face (Lee, 1997, 2002; Morrison, 2002; for reviews, see Ashford, Blatt, & VandeWalle, 2003; Grant & Ashford, 2008). Put differently, the central questions underlying help-seeking decisions are: (a) If I approach person X, will I benefit by gaining assistance, and (b) can I ask person X for help without feeling incompetent or embarrassed or otherwise losing face?

In terms of uncertainty reduction, research on information-seeking suggests that approaching individuals with a high degree of expertise is beneficial (e.g., Morrison & Vancouver, 2000). Obviously, individuals with greater expertise are more capable of reducing uncertainty, as they can provide more useful insights and facilitate sensemaking efforts. Thus, experts are likely to be sought out for help more frequently (e.g., Morrison & Vancouver, 2000; Nadler et al., 2003; Vancouver & Morrison, 1995; Wills & DePaulo, 1993). Related evidence from the broader literature on work teams reinforces this notion, revealing that effective use of expertise within groups leads to better performance (Austin, 2003; Bunderson, 2003; Hackman, 1987; Hinsz, Tindale, & Vollrath, 1997; Larson & Christensen, 1993; Libby, Trotman, & Zimmer, 1987; Littlepage, Robison, & Reddington, 1997; Steiner, 1972; Taylor & Greve, 2006).

The effective use of expertise, however, is far from straightforward. It has long been recognized that status hierarchies develop within task-performing groups very quickly, where status is typically based on perceptions of competence and expertise (Ridgeway, 1984; see also Bunderson, 2003). These status perceptions impact the behavior of individuals with high status and those with

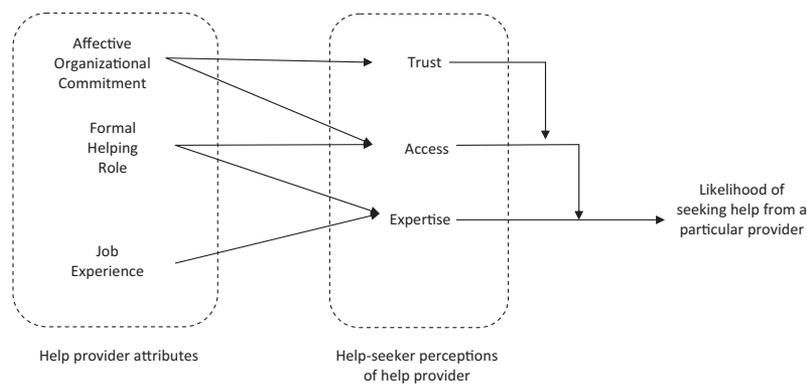


Figure 1. Overall model of hypotheses.

low status (Milanovich, Driskell, Stout, & Salas, 1998; Ridgeway, 1984; Van der Vegt et al., 2006). In particular, lower-status individuals are often reluctant to approach those of higher status with questions or problems. This is because help-seeking can reveal a lack of competence and, as a result, increase the image costs of help-seeking (Lee, 1997, 2002; Williams & Williams, 1983; see also Ashford et al., 2003). Indeed, research in the airline and healthcare industries suggests that this reluctance to speak up with requests for help is a pervasive problem (e.g., Alkov, Borowsky, Williamson, & Yacavone, 1992; Foushee, 1984; Manasse, Turnbull, & Diamond, 2002; Mjos, 2004).

To overcome this reluctance, it is necessary to reduce the perceived costs of help-seeking (Grant & Ashford, 2008; Lee, 1997, 2002). We propose that two factors that reduce these costs are accessibility (Borgatti & Cross, 2003) and trust (Mayer, Davis, & Schoorman, 1995). First, accessibility is likely to encourage individuals to seek out help from experts by making it easier to ask. Help-seekers are often reluctant to bother and intrude on experts, who are generally quite busy (see DePaulo & Fisher, 1980). Accessibility reduces these costs; accessible help is, by definition, easy to obtain and requires less effort from the help-seeker's perspective (e.g., Borgatti & Cross, 2003; Hoque & Lohse, 1999; Morrison & Vancouver, 2000; O'Reilly, 1982; Vancouver & Morrison, 1995). Second, trust is likely to encourage individuals to seek out help from experts by making it safe to be vulnerable. When help-seekers trust potential help providers, they hold positive expectations about the providers' intentions (Mayer et al., 1995), which reduces the potential cost of approaching providers.

Whereas previous research has focused on the main effects of perceived expertise on help-seekers' decisions about who to ask, we focus on interactive effects. We explore how the relationship between perceived expertise and help-seeking is moderated by perceptions of accessibility and trust. As noted above, expertise signals more valuable knowledge, increasing the potential benefits of help-seeking, but it can result in status distinctions that can increase the potential costs of help-seeking. Given the fact that both accessibility and trust should serve to reduce these costs, we expect an interaction between accessibility and trust when seeking help from experts.

The primary necessary condition for seeking help from help providers is that doing so must not be perceived as highly costly. Obviously, seeking help will be perceived as most costly when help providers are perceived as both inaccessible and untrustworthy. We argue, however, that the presence of either trust or accessibility can reduce the costs of seeking help such that these two factors can substitute for one another. Possessing a deep and trusting relationship with an expert help provider is one way to ensure that help-seeking will not be costly. If a potential help provider is trusted by the help-seeker, then the potential costs of help-seeking are minimized even if the help provider is very busy (i.e., inaccessible). In other words, a rich, trusting relationship gives the help-seeker entrée to the help provider and makes the latter available to the help-seeker without fear of losing face (e.g., Dutton, Ashford, Wierba, O'Neill, & Hayes, 1997; Mayer et al., 1995). As an example, think of individuals in your own professional network who possess a high degree of expertise and are extremely busy (e.g., a mentor in doctoral studies). If you have a rich and trusting relationship with them, you are able to call on

them for help, whereas others who lack this relationship would be less likely to do the same, due to perceived inaccessibility. We believe that similar patterns occur on the front lines of healthcare. Nurses who have rich and trusting relationships with expert help providers seek help from these individuals because the high degree of trust renders seeking help less costly, even if the help providers are quite busy (i.e., inaccessible).

As is the case in our own professional networks, nurses are reluctant to seek help from expert help providers with whom they do not have a trusting relationship unless there is a strong signal that they are very accessible. When expert help providers are readily accessible, however, we expect that they are sought out for help more frequently, as this accessibility reduces the potential costs of help-seeking. We expect that in situations where expert help providers are readily accessible—particularly given the context of healthcare, where uncertain patient conditions can lead to quite devastating consequences—this accessibility leads to help-seeking even if the help-seeker does not have a rich and trusting interpersonal relationship with the help provider.

Under conditions of low expertise, we expect simple linear effects of accessibility and trust. This is in part the case because the status differentials driven by differences in expertise are likely to be reduced, decreasing the overall costs of help-seeking. Given this likely reduction in status differences, we believe that access and trust play a more straightforward role, such that trust and accessibility are not expected to substitute one for the other. Thus, we expect simple linear relationships between help-seeking and both accessibility and trust. Given these arguments, we predict a three-way interaction between expertise, accessibility, and trust in predicting help-seeking, such that the association between help-provider expertise and help-seeking is strengthened by accessibility or trust.

Hypothesis 1: There will be a three-way interaction between perceived expertise, accessibility, and trust in predicting help-seeking. The form of this interaction is that under conditions of high expertise, there will be an interaction between trust and accessibility with trust and accessibility serving as substitutes one for the other. Under conditions of low expertise, we expect a simple linear relationship between trust, accessibility, and help seeking.

Predictors of Interpersonal Perceptions: Help Provider Job Experience and Work Roles

Having discussed how interpersonal perceptions may moderate the effect of expertise on being sought out for help, our focus now turns to variables predictive of these interpersonal perceptions; namely, individual characteristics and work roles of help providers. It is important to consider these factors because they begin to answer Bamberger's (in press) call for more comprehensive help-seeking models and because, from a practical standpoint, a better understanding of the help-seeking process can inform managers how to encourage help-seeking in situations where it is needed.

Starting at the most basic level, individuals with more job-relevant experience should be perceived by others as possessing greater expertise. With job experience, individuals gain increased job knowledge, skills, and techniques that can improve both performance and problem solving (Goodwin & Ziegler, 1998;

Schmidt, Hunter, & Outerbridge, 1986; Seamster, Redding, Cannon, Ryder, & Purcell, 1993; cf. Sonnentag, 1998). This is particularly the case for complex jobs (Sturman, 2003). Thus, we hypothesize:

Hypothesis 2: Help providers who have more job experience will be perceived by seekers as possessing greater expertise.

Moving beyond simple experience in the job, help-seeker perceptions will also be influenced by how help providers operationalize their role and how help-seekers perceive this role. Behavior within organizational settings is heavily influenced by work roles (Katz & Kahn, 1978). Recent research suggests that individuals vary in their perceptions regarding which behaviors are formally prescribed, and they more frequently engage in behaviors perceived to be part of their formal role (Hofmann, Morgeson, & Gerras, 2003; Morrison, 1994). As a result, many organizations create formal roles to encourage exchanges of help. For example, hospitals formalize nurse preceptor roles (e.g., DeCicco, 2008), businesses formalize coaching roles (e.g., Hackman & Wageman, 2005), and universities formalize ombudsperson roles (e.g., Stewart, 1978).

We propose that when potential help providers occupy a formal helping role, this signals to help-seekers that these providers have expertise and are accessible.¹ With respect to expertise, the fact that the help providers have been selected by the organization to occupy a formal helping role signals that they have the relevant qualifications, skills, and competencies to help effectively. With respect to accessibility, the fact that the help providers have accepted this formal helping role signals that they have the time available for, and interest in, helping. These predictions are consistent with classic role theory, which maintains that roles are shared expectations embedded in social positions (Katz & Kahn, 1978; see also Callero, 1994). As such, the designation of a formal helping role signals particular expectations to help-seekers that the occupant of this role has relevant expertise and is accessible to provide help. Therefore, we predict:

Hypothesis 3a: Help providers fulfilling formal helping roles will be perceived by seekers as having more expertise.

Hypothesis 3b: Help providers fulfilling formal helping roles will be perceived by seekers as more accessible.

Beyond their experience and formal roles, we expect help providers' affective commitment to the organization to influence seekers' perceptions. Several studies have linked affective organizational commitment to expanded role definitions, such that individuals who are more affectively committed to the organization define their roles more broadly to include helping and citizenship behaviors (Morrison, 1994; for a review, see Meyer, Stanley, Herscovitch, & Topolnysky, 2002). Accordingly, we propose that help providers with higher affective commitment to the organization will be perceived by help-seekers as more accessible and trustworthy.

Research indicates that individuals with high affective organizational commitment display their dedication by investing more time and energy in assigned and voluntary activities. In other words, they work harder and longer, and they provide more help to others (Meyer et al., 2002; Morrison, 1994). These behaviors send

a signal to help-seekers that these providers are accessible for help and can be trusted to provide help. In addition, individuals who are affectively committed to the organization are more likely to experience and express positive emotions, which send signals of warmth, likeability, and friendliness (Meyer et al., 2002; Staw, Sutton, & Pelled, 1994). These emotions, in turn, signal to others on the unit that these providers are accessible and willing to help. Likewise, their past histories of responding favorably to requests for help and engaging in behaviors designed to help others signal both accessibility and trustworthiness. In sum, affective organizational commitment motivates providers to engage in positive behaviors and express positive emotions, signaling accessibility and trustworthiness to help-seekers. Therefore, we hypothesize:

Hypothesis 4a: Help providers more affectively committed to the organization will be perceived by seekers as more accessible.

Hypothesis 4b: Help providers more affectively committed to the organization will be perceived by seekers as more trustworthy.

Hypotheses 1–4b and Figure 1 imply that in order for the characteristics of help providers to influence help-seekers' actions, these characteristics need to generate more proximal interpersonal perceptions. We hypothesized that these perceptions would be linked to perceptions of trust, expertise, and accessibility. We further hypothesized that these interpersonal perceptions would combine to predict help-seeking decisions. This suggests a mediated model where job experience predicts perceptions of expertise, fulfilling the formal job role predicts expertise and accessibility, and affective organizational commitment predicts perceptions of accessibility and trust. These perceptions of expertise, trust, and accessibility, in turn, interact to predict help-seeking requests. In light of these implied relationships, we not only tested the specific hypotheses above (i.e., Hypotheses 1–4b), but we also investigated these mediated relationships.

Method

Research Setting and Participants

The research setting for this study was a 500-bed, multiservice hospital that treats more than 90,000 patients annually. The facility provides a variety of services, including a 24-hr adult emergency department, a 24-hr freestanding children's emergency department, a highly regarded heart center, a neuro-intensive care unit, and orthopedic care, as well as treatment and rehabilitation for individuals recovering from strokes, spinal cord injuries, brain injuries, arthritis and neuromuscular disorders. All nurses were contacted to participate in the research. Approximately 850 surveys were distributed, but due to turnover and other personnel changes between the time that the researchers received the list of

¹ Although fulfilling a formal helping role will be related to perceptions of accessibility and expertise, it is not likely to be related to perceptions of trust. Specifically, we did not hypothesize a relationship between the formal helping role and perceptions of trust because perceptions of interpersonal trust would be more a function of how the individual fulfills the role, rather than being part of the role itself (see Mayer et al., 1995).

nurses and the survey administration, the actual initial population was closer to 800. Responses were received from 197 nurses for an initial response rate of 25%. As described below, nurses were included in the analysis only if at least 1 other nurse rated them on a number of different items. This reduced the final sample size to 146 nurses nested in 18 units.

The final sample had an average tenure on the unit of 7 years and tenure within the organization of 9 years, and their average age was 41. The sample was largely registered nurses (94%), female (93%) and Caucasian (86%). Given the relatively low response rate, it was important to compare our final sample to the broader population of nurses within the participating hospital as well as industry-level demographics. The final sample did not differ significantly from the larger population of nurses at the hospital in terms of age [population $M = 42$, $t(132) = .46$, *ns*], nor average tenure at the hospital [population $M = 7$, $t(145) = .05$, *ns*]. There were, however, a greater proportion of female respondents in the sample when compared with the larger population [population 81% female, $t(145) = 5.23$, $p < .01$]. In terms of the national population of nurses—on the basis of a survey conducted in March 2004 (U.S. Department of Health & Human Services, 2004)—the average age of registered nurses was 46.8, and approximately 94% were female. The results revealed that our sample did not differ in terms of the percentage of female nurses, $t(145) = .70$, *ns*, but did differ in terms of age: Our sample was younger, $t(131) = 6.96$, $p < .01$. Our final sample, the population of nurses within the participating hospital, and the overall population of nurses within the U.S. are, on average, in their early to mid-40s and predominantly female.

Procedures and Measures

The overarching goal of this study was to investigate the factors that predicted the likelihood that an individual would be sought out for help in response to complex and uncertain work situations. To investigate this question, we used the unit work schedule to identify groups of nurses who typically worked together. We then formed random survey groups in which nurses were asked to rate other nurses in their survey group. We chose this approach for three reasons. First, we sought to increase the variability in the ratings of seeking out others for help. For example, if the nurses were presented with an open-ended question asking them to list whom they would seek out and whom they would not, then only the extreme ends of the continuum would be captured. By creating randomly formed survey groups, we captured a broader range of responses. Second, we sought to focus on the specific individuals from whom the nurses could realistically seek help. By listing specific nurses with whom the respondent had worked in the past, we focused and limited their responses to the most immediate resources available to them (i.e., their immediate colleagues), thereby eliminating response that were overly vague (e.g., a friend) or unrealistic (e.g., a colleague from nursing school who works for a different hospital).

Third and most important, we believed that providing a specific list of nurses would mirror the actual work environment as closely and realistically as possible. Given the typical staffing of nursing units, often a large number of nurses (e.g., 100) staff a significantly smaller number of full-time-equivalent positions on a unit (e.g., 20). Even though many nurses worked part time, the majority of nurses in this facility typically worked particular shifts (e.g., weekday days, weekday nights, weekend days, weekend nights). Thus,

it was likely that on any given day, a particular nurse would be scheduled to work with a collection of other nurses somewhat randomly drawn from a larger population of nurses who typically worked the same shift. For this reason, nurses knew the other nurses who typically worked their shifts, yet the specific daily makeup of this group was subject to change. Because this fluctuating group of nurses comprised the most immediate resources available for help-seeking, it provided the most realistic population on which to base the research.

In forming the survey groups, the research team obtained a 6-week duty roster that contained the daily schedule for each unit and each shift. From these duty rosters, the research team identified nurses who worked similar shifts and work schedules. On the basis of this information, the nurses were randomly clustered into groups of 6–12 (depending on the total number of nurses). Each nurse in the group was then asked to rate every other nurse in the group on a number of dimensions noted below. Unless otherwise indicated, we used a 5-point Likert-type scale (1 = *strongly disagree* and 5 = *strongly agree*.) Appendix A contains the exact text of our measures.

Help-seeker ratings of the trust, expertise, and access of potential help providers. Nurses (i.e., help-seekers) were asked to rate a sample of other nurses (i.e., potential help providers) in terms of their expertise, accessibility, and trust. Specifically, we had nurse respondents rate, on average, 10 other nurses with whom they typically worked. To develop measures of trust and expertise, we consulted existing definitions of trust (Mayer et al., 1995; McAllister, 1995). On the basis of these definitions, we operationalized *trust* as the degree to which individuals were willing to be vulnerable and put themselves at risk to another person. Each nurse (i.e., help-seeker) was asked to rate each of the other nurses (i.e., help providers) on an item stating, “I have an open, trusting relationship with this person.” We defined *expertise* as the assessment of another person’s capability, competence, and knowledge, as well as their ability to carry out obligations and their overall work-related reliability, dependability, competency and knowledge (Mayer et al., 1995; McAllister, 1995). Using this definition, nurses (i.e., help-seekers) were asked to rate each of the other nurses’ (i.e., help providers) overall skill, competence, expertise, and knowledge. Finally, based on the measure used by Borgatti and Cross (2003), we defined *accessibility* as the extent to which a potential help provider’s knowledge was made available in a timely manner. Nurses (i.e., help-seekers) were asked to rate each of the other nurses (i.e., help providers) regarding the degree to which they had access to this person’s knowledge.²

² Given the nature of our study, single-item measures were used to assess expertise, trust, and accessibility. Using multiple items would have significantly lengthened the survey, raising possible concerns of respondent fatigue. It should also be noted that other research involving ratings on multiple dimensions has adopted a similar strategy (Borgatti & Cross, 2003; see also Cross et al., 2001). Furthermore, research has shown that although multi-item scales are preferred, single-item measures can provide reliable assessments (Nagy, 2002; Wanous & Hudy, 2001). In fact, Wanous, Reichers, and Hudy (1997) concluded that their findings made the case “for the acceptability of single-item measures when either the research question implies their use or when situational constraints limit or prevent the use of scales” (p. 250). Given the nature of our research question, other similar research, and the logistical demands of having nurses rate multiple nurses on several different dimensions, we opted to use single-item measures.

Being sought out for help. On the basis of the existing literature and focus groups with nurses, we identified three different situations in which nurses commonly seek help. The first situation focused on seeking help prior to taking action, and the next two situations dealt with complications arising after taking action. One situation involved a respondent who had made an error in patient care, whereas the second situation involved a complex patient response after taking action (i.e., nonerror). Given the high average intercorrelation among these three situations (average $r = .87$), we created an overall measure of help-seeking by combining these three measures into a composite assessment ($\alpha = .95$).

Job experience. Job experience was operationalized as the number of years that nurses had worked on their current units ($M = 6.6$, $SD = 7.0$).

Formal helping role. The participating organization created formal helping roles by assigning "nurse preceptors" to each unit. These individuals were formally assigned the job of assisting new employees with work-related problems as well as socializing them into the unit. Nurse preceptors were also expected to serve as consultants and resources for less experienced nurses. Each nurse respondent was asked whether he or she fulfilled the nurse preceptor role (1 = no, 2 = yes).

Affective organizational commitment. We measured nurses' affective organizational commitment using Meyer, Allen, and Smith's (1993) six-item scale, which includes items such as "I really feel as if this organization's problems are my own" ($\alpha = .90$).

Results

Table 1 provides the means, standard deviations, and intercorrelations of the variables at the individual level. Although this table provides overall descriptive statistics, it does not take into account the different levels of analysis of the variables. In other words, the data structure consisted of three distinct and nested levels. The first level was within subjects, where the respondent (i.e., help-seeker) rated other potential help providers ($N = 344$). The second level was the help-provider level ($N = 146$), and the third level was the unit ($N = 18$). Thus, individual ratings were nested within help providers and help providers were nested within units. To formally test our hypotheses, we needed to take this multilevel and nested structure of the data into account. We accomplished this by using a random coefficient model (i.e., Bryk & Raudenbush, 1992; Hofmann, Griffin, & Gavin, 2000). Appendix B details the structure of the data and describes the error components that were estimated (i.e., Level 1, target, rater, and unit).

Hypothesis Testing

Each hypothesis was investigated by creating a multilevel model. At the within-individual level (Level 1), the data consisted of multiple help-seekers' ratings of a potential help provider. These ratings included the degree to which the help-seekers would be likely to approach this help provider, as well as their perceptions of the help provider's expertise, trust, and accessibility. Variables at the help provider level (Level 2) consisted of the help provider's job experience, formal work role, and affective organizational commitment. Because help providers were nested in different units, we also controlled for unit by computing a unit-level

variance component.³ In addition, we standardized the Level 1 independent variables prior to computing the interaction effects and estimated a rater variance component (see Table 2 and Appendix B).

Hypothesis 1 specified that expertise, accessibility, and trust would interact to predict help-seeking. Table 2 presents the results of this analysis. To test this hypothesis, we first estimated a null model to decompose the overall variance into its different sources. The results of this analysis (see note to Table 2) revealed that 44% of the total variance resided within-individual, 32% resided at the help provider level, and 9% of the variance resided at the unit level. These results also revealed that 15% of the total variance resided at the rater level, suggesting that it was necessary to control for this source of variance (see Appendix B). Model 1 in Table 2 reveals that each of the help provider perceptions significantly predicts being consulted by others (trust: $.47$, $p < .01$; expertise: $.34$, $p < .01$; access: $.18$, $p < .01$). The three two-way interactions were entered in Model 2, with the expertise-by-access interaction reaching statistical significance. Model 3 reveals that the three-way expertise-by-accessibility-by-trust interaction was significant ($-.12$, $p < .01$; R^2 change = $.05$, $p < .01$). The form of this interaction is depicted in Figure 2.

Given our primary focus on when individuals are likely to seek out experts for help, we plotted the form of the three-way interaction by investigating the two-way interaction between accessibility and trust separately for high and low levels of expertise. This enabled us to obtain a clear picture of the interactions of accessibility and trust for those individuals perceived to be experts. As predicted, when help providers are perceived as possessing a high degree of expertise, an interactive relationship between trust and accessibility emerges. Under conditions of low trust, a simple slope analysis (Bauer & Curran, 2005) revealed that accessibility had a strong positive relationship with being consulted by help-seekers ($b = .43$, $p < .01$). For providers viewed as trustworthy, accessibility was not significantly related to being sought out for help ($b = .04$, *ns*). Slope difference tests (Dawson & Richter, 2006) revealed that these two slopes under the high expertise condition were significantly different from one another, $t(336) = 3.52$, $p < .01$.

For individuals perceived as possessing less expertise, Figure 2 reveals that, as predicted, there is a linear, additive relationship between access and trust and being sought out for help. A simple slopes analysis (Bauer & Curran, 2005) revealed in the low-expertise condition that the relationship between accessibility and being sought out for help was significant and positive for both low trust ($b = .27$, $p < .01$) and high trust ($b = .36$, $p < .01$). A slope difference test (Dawson & Richter, 2006) indicated that these two slopes did not differ significantly, $t(336) = 1.01$, *ns*. In other words, under conditions of low expertise, help providers are

³ We also investigated the complexity of the work on the unit using a seven-item measure from Withey, Daft, and Cooper (1983). This seven-item measure consisted of two subdimensions—one assessing exceptions and the other assessing the analyzability of the work. The original thought was to use this as a control variable. However, the results revealed that the largest correlation between this measure and any of the substantive variables at the interpersonal or help provider level (i.e., trust, expertise, access, organizational commitment, informal input seeking) was $.08$. Thus, it is not reported here.

Table 1
Means, Standard Deviations, and Intercorrelations of All Variables Included in the Study at the Individual Level

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Nurse preceptor job role	1.64	0.48	—						
2. Job experience	6.62	7.01	-0.12	.90					
3. Affective commitment	3.72	0.77	0.02	0.21**	.81				
4. Trust	3.91	0.80	0.14	0.18*	0.19*	.84			
5. Expert	4.11	0.73	0.22**	0.25**	0.08	0.66**	—		
6. Access	4.10	0.69	0.24**	0.15	0.15	0.63**	0.66**	—	
7. Sought out for help by others	3.68	1.02	0.30**	0.20*	0.15	0.71**	0.70**	0.61**	.95

Note. *N* = 146. Correlations are at the individual level of analysis. As is described in the Method section, individual nurses had multiple ratings of trust, expertise, access, and being sought out for help (i.e., for any particular target nurse, multiple nurses could have rated their perceived trust, expertise, and accessibility, as well as whether the rating nurses would consult him or her when confronted with uncertainty). To compute these intercorrelations, we aggregated ratings to the individual level. Diagonal values represent internal consistency reliability estimates, where appropriate.

p* < .05. *p* < .01.

sought out by others in keeping with their level of accessibility and trust where these two factors have a linear, additive relationship. It should be highlighted here that individuals who are not considered to be experts, but who are perceived to be both trustworthy and accessible, are approached for help with reasonable frequency (e.g., predicted help-seeking over 4.0 on a 5-point scale).

Thus, the form of the interaction was consistent with Hypothesis 1. Our interpretation of this interaction is that if a help-seeker has a trusting interpersonal relationship with an expert help provider, this trust compensates or substitutes for a lack of accessibility to encourage help-seeking. When trust is not present, however, help-seekers will approach highly expert help providers only if they are highly accessible. Therefore, in the presence of trust, accessibility

is not a very important predictor of help-seeking. These results coupled together suggest that trust or accessibility needs to be present for a high degree of help-seeking to occur from expert help providers. Not surprisingly, the least likely to be sought out for advice were those highly expert help providers perceived as lacking in both accessibility and trustworthiness.

Hypotheses 2–4b focused on predictors of these interpersonal perceptions. Hypothesis 2 predicted that job experience would be significantly related to interpersonal perceptions of expertise. To investigate this hypothesis, we regressed perceptions of expertise onto our measure of job experience, using the same random coefficient approach that we used to test Hypothesis 1. Because the results revealed that help providers who had more job experience

Table 2
Hierarchical Linear Modeling Results for Level 1 Effects

Variable	Parameter estimate	<i>t</i> value	Level 1 residual	Target	Rater	Unit	<i>R</i> ² overall model
Model 1							
Trust	.47	8.25**					
Expertise	.34	6.12**					
Access	.18	3.02**					
Variance components and overall <i>R</i> ²			.28	.05	.31	.03	.51
Model 2							
Trust	.48	8.35**					
Expertise	.37	6.42**					
Access	.23	3.68**					
Expertise × Access	.10	2.06**					
Expertise × Trust	.03	0.74					
Access × Trust	-.01	-0.25					
Variance components and overall <i>R</i> ²			.30	.04	.26	.02	.55
Model 3							
Trust	.50	8.99**					
Expertise	.44	7.67**					
Access	.28	4.60**					
Trust × Expertise	.01	0.24					
Access × Expertise	-.04	-0.75					
Trust × Access	-.08	-1.54					
Trust × Expertise × Access	-.12	-5.30**					
Variance components and overall <i>R</i> ²			.28	.05	.21	.01	.60

Note. Sample size was 344 at Level 1, 146 at Level 2, and 18 at Level 3. Variance components for null model were: Level 1 residual = .61; target = .44; rater = .21; unit = .12. *R*² values were computed by comparing the reduction in the overall variance for each of the models to the variance components in the null model; that is, (sum of variance components-null – sum of variance components-model)/sum of variance components-null.

p* < .05. *p* < .01.

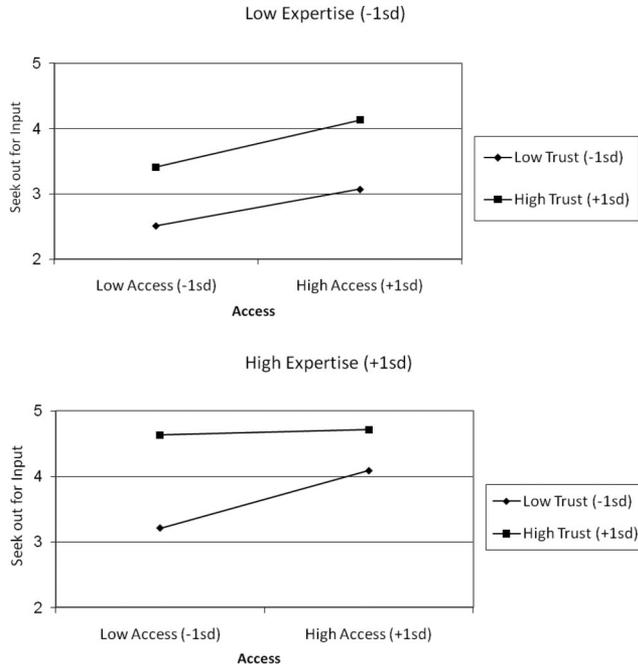


Figure 2. Three-way interaction between trust, expertise, and access.

were perceived as having greater expertise, $b = .03, t(144) = 3.01, p < .01$, Hypothesis 2 was supported.

Hypotheses 3a and 3b predicted that when potential help providers fulfilled a formal role designed to provide assistance and support, they would be perceived as possessing greater expertise and being more accessible. To investigate these hypotheses, we

regressed perceptions of expertise and accessibility onto the dummy code for fulfilling the nurse preceptor role in two separate analyses. The results revealed that fulfilling the nurse preceptor role significantly predicted perceptions of expertise, $b = .25, t(144) = 1.82, p < .05$, and accessibility, $b = .30, t(144) = 2.39, p < .01$. The direction of these relationships indicates that help providers fulfilling the nurse preceptor role were perceived as possessing greater expertise and being more accessible, supporting Hypotheses 3a and 3b.

Hypotheses 4a and 4b predicted that potential help providers who were more affectively committed to the organization would be perceived by help-seekers as more accessible and trustworthy. The results of our investigation of this hypothesis revealed that affective commitment was not significantly related to perceptions of accessibility, $b = .11, t(144) = 1.32, ns$, but it was significantly related to perceptions of trust, $b = .19, t(144) = 2.28, p < .05$. Therefore, Hypothesis 4a was not supported, but Hypothesis 4b was supported.

Supplementary Analyses: Implied Mediation

As shown in Figure 1, Hypotheses 1–4b imply a mediated model where the relationships of help provider job experience, formal role, and affective organizational commitment with help-seeking are mediated by interpersonal perceptions of expertise, accessibility, and trust. To explore these relationships more fully, we adopted a multistep process for investigating mediated relationships (Baron & Kenny, 1986). The results of this investigation can be found in Table 3.

The first three models in Table 3 regressed each of the mediators (i.e., trust, expertise, accessibility) onto the three independent variables (i.e., nurse preceptor, job experience, and affective com-

Table 3
Hierarchical Linear Modeling Results for Investigation of Implied Mediation

Independent variable	Dependent variables					
	Model 1: Trust	Model 2: Expertise	Model 3: Access	Model 4: Help-seeking	Model 4: Help-seeking	Model 5: Help-seeking
Trust					.48**	.50**
Expertise					.33**	.43**
Access					.17**	.27**
Trust × Expertise						.01
Access × Expertise						-.04
Trust × Access						-.08
Trust × Expertise × Access						-.12**
Nurse preceptor job role	.10	.29*	.32**	.53**	.24**	.24**
Job experience	.02*	.03**	.01	.03**	.01	.01
Affective commitment	.15*	-.01	.08	.08	-.04	-.02
Variance components/ R^2						
Level 1 Residual	.45	.57	.58	.61	.28	.28
Target	.19	.24	.18	.41	.05	.05
Rater	.40	.12	.20	.19	.31	.21
Unit	.00	.05	.04	.05	.01	.00
R^2 overall model	.02	.04	.04	.09	.53	.61

Note. Sample size was 344 at Level 1, 146 at Level 2, and 18 at Level 3. Variance components for null model with help-seeking as the dependent variable were: Level 1 residual = .61; target = .44; rater = .21; unit = .12. R^2 values were computed by comparing the reduction in the overall variance for each of the models compared to the variance components in the null model; that is, (sum of variance components-null - sum of variance components-model)/sum of variance components-null.
* $p < .05$. ** $p < .01$.

mitment). As is consistent with the tests of our hypotheses above, trust was significantly predicted by job experience and affective commitment, expertise was significantly predicted by job experience, and accessibility was significantly predicted by nurse preceptor role. Model 4 in Table 3 regressed the independent variables onto help-seeking behavior. Help-seeking was significantly predicted by nurse preceptor role ($b = .53, p < .01$) and job experience ($b = .03, p < .01$). Help-seeking was not significantly predicted by affective commitment ($b = .08, ns$). Model 4 adds the main effects of our mediators to the equation. All three mediators significantly predicted help-seeking (trust = $.48, p < .01$; expertise = $.33, p < .01$; and access = $.17, p < .01$). In addition, the b -weights associated with the independent variables were reduced. Specifically, the b -weight for the nurse preceptor role was reduced from $.53$ to $.24$ ($p < .01$), and the b -weight for job experience was reduced from $.03$ to $.01$ (ns). Model 5 adds the two- and three-way interactions among the mediators. The results for the independent variables—nurse preceptor role, job experience, and affective commitment—remain relatively unchanged with the addition of these two- and three-way interactions.

To more fully investigate the implied mediation, we conducted Sobel tests to investigate these relationships using the main effects of the mediator variables, because adding in the interactions had minimal influence on the b -weights associated with the independent variables. Specifically, we tested the following mediated relationships (see Figure 1): (a) expertise mediating the relationship between job experience and help-seeking; (b) expertise and accessibility mediating the relationship between nurse preceptor role and help-seeking; and (c) accessibility and trust mediating the role between affective commitment and help-seeking. The results of these follow-up tests, using the MacKinnon, Lockwood, Hoffman, West, and Sheets (2002) criteria, revealed that expertise mediated the relationship between job experience and help-seeking ($z' = 3.02, p < .01$), and accessibility and trust both mediated the relationship between nurse preceptor role and help-seeking (accessibility: $z' = 2.35, p < .01$; expertise: $z' = 1.81, p < .01$).⁴

Discussion

As work and technologies become more complex, individuals often face uncertainty and ambiguity regarding how to solve problems. These informational deficiencies trigger interpersonal, socially based, and communication-rich sensemaking efforts to better understand and adaptively respond to one's environment (Maitlis, 2005; Weick et al., 2005). The current study was designed to investigate the degree to which interpersonal, individual, and unit variables were related to one aspect of this sensemaking process—namely, seeking help from peers. Our findings reveal that individuals are more likely to seek help from peers whom they perceive as experts, provided that they perceive them as accessible, trustworthy, or both. Our results further illuminate that help-seekers are more likely to perceive potential help providers as experts when they have job experience and occupy a formal helping role, and as accessible when they occupy a formal helping role. Our research thereby offers important contributions to organizational and psychological theory, research, and practice.

Theoretical Implications

Our research provides new insights into the psychological, interpersonal, and contextual dynamics of help-seeking. Although past research has provided insight into why some individuals seek more help than others (e.g., Ashford & Cummings, 1983; Ashford & Tsui, 1991; Lee, 1997, 2002), our study advances knowledge of the factors that influence decisions about whom to seek out for help and why. These results contribute to a more nuanced, detailed understanding of how individuals base their help-seeking decisions on multidimensional judgments of potential help providers.

Our research also sheds light on how the characteristics of potential help providers influence these perceptions of help-seekers. Our findings show that help-seekers perceive help providers with more experience as having greater expertise, providers who occupy a formal helping role as having greater expertise and accessibility, and providers who are affectively committed to the organization as being more trustworthy. These results provide new insights into the factors that shape help-seekers' perceptions of help providers.

Moving beyond the help-seeking literature, our findings also inform research on status in task groups. It has long been recognized that status hierarchies develop within task-performing groups quite quickly, where status is typically based on perceptions of expertise and competence (Bunderson, 2003; Ridgeway, 1984). To overcome the reluctance of individuals to seek help from experts, help-seeking behavior must be perceived as less costly and normatively acceptable (e.g., Wiener, Kanki, & Helmreich, 1993). The results of our three-way interaction suggest two ways in which this might occur. First, signals of experts' accessibility can reduce the perceived costs of seeking help from experts. Second, when these cues of accessibility are not available, strong interpersonal relationships can place people within experts' in-groups, thereby legitimizing approach behavior. Both of these processes serve to reduce the costs associated with seeking help by making this behavior more acceptable.

Our results suggest that one way to signal accessibility is through communicating very clear role expectations. Although organizations often use job titles to communicate role expectations (Katz & Kahn, 1978), our findings suggest that these role expectations may play a critical role in making help-seeking behavior more normatively acceptable. In this way, these role expectations might serve to reduce the impact of status differences and facilitate individual sensemaking, organizational learning, and error management. Our results suggest that communicating clear role expectations (i.e., it is part of an individual's job to help others) can encourage a more open exchange of information and increased help-seeking behavior. This open exchange of information and help-seeking is frequently discussed as a

⁴ Although a bootstrapping methodology has several advantages over the Sobel test (e.g., Edwards & Lambert, 2007; MacKinnon, Fairchild, & Fritz, 2007), the extrapolation of this bootstrapping methodology to multilevel models is neither straightforward nor simple. We did, however, apply the Edwards and Lambert (2007) moderated mediation methodology to our data without fully taking into account the multilevel nature of the data. The only difference in the results was that the bootstrap methodology did not support trust as a mediator of the relationship between affective commitment and help-seeking. In light of this, we have chosen not to spend much time interpreting this relationship in the remaining parts of the article.

key component of sensemaking activities (e.g., Weick et al., 1999), and these sensemaking activities can, in turn, facilitate organizational learning and error management by ensuring that relevant expertise and knowledge resident within the team is effectively used (e.g., Brandon & Hollingshead, 2004).

Practical Implications

The interaction among the three interpersonal perceptions—expertise, accessibility, and trust—also has important practical implications for error prevention and management in healthcare settings (Frese, 1991; Van Dyck, Frese, Baer, & Sonnentag, 2005), especially with reference to new, temporary, and/or agency nurses. For example, Manias, Aitken, Peerson, Parker, and Wong (2003) describe how agency nurses can feel wary when assigned to new locations: “Associated with this wariness was the participants’ belief that they did not experience a sense of belonging to the health care team of the ward setting” (p. 274). Manias et al. (2003) also quoted agency nurses as stating, “as much as you try . . . you feel sometimes a bit left out, a bit cold” (p. 274) and “the working relationship is separate and isolated” (p. 275).

Situations like these identify two possible types of nurses working on a unit: (a) those who have rich and well-developed relationships as a result of working regularly on the unit, and (b) those who have been unable to develop these relationships because they are not regular employees consistently assigned to the same unit, or they are new to the unit. For the first group, seeking help in response to complexity is neither a problem nor an issue (i.e., “Because I have a good relationship with experts, this relationship provides me entrée to them irrespective of their accessibility”). However, for individuals who are not consistently assigned to the unit (e.g., contract workers, float nurses, temporary employees), the accessibility of expertise becomes an important determining factor. Thus, from a practical standpoint, ensuring that expert help is accessible and that seekers are aware of this is an important consideration in whether individuals will seek out the help that they need to make sense of complex situations, adaptively respond, and prevent and manage errors (Weick et al., 2005). Creating formal helping roles appears to be one important step in providing clear signals of the accessibility of experts.

Although it is important to highlight the implications of our findings for nurses who do not have the opportunity to develop rich interpersonal relationships on the unit, there are several other implications of our findings with respect to expertise and trust. For example, it is interesting that help providers who have relatively low expertise, but who are perceived to be trustworthy and accessible, are still predicted to be approached fairly frequently. This has some intriguing and potentially troubling implications for organizational learning and error management. Specifically, based on our results, it is quite possible that individuals are fairly likely to seek out accessible friends even though their expertise may be questionable. We believe that this further reinforces the importance of having clear, well-defined helping roles on the unit where individuals are selected for these roles on the basis of their technical knowledge and where having these roles on the unit signals that this knowledge is available. However, because these roles were not related to perceptions of trust, it is also critical for organizations to think about providing some training to the individuals fulfilling these roles so that they can provide help in a way that builds trust and psychological safety.

Limitations and Conclusions

Our study investigated individuals’ perceptions of whom they would seek out for help, instead of actual help-seeking behavior. When considering other avenues to measure help-seeking behavior, there are at least two alternatives: direct observation and independent ratings provided by others. Direct observation of the help-seeking behavior described herein would have resulted in problems with respect to federal standards regarding personal privacy of health data pursuant to the Health Insurance Portability and Accountability Act of 1996, as researchers would learn about confidential patient conditions during the observation. Another popular way to measure help-seeking is through the use of ratings provided by supervisors and coworkers. However, the purpose of our investigation was to investigate help-seeking in potentially sensitive and threatening situations (e.g., uncertainty about how to act, not understanding a patient’s response after acting, and realizing an error has been committed). Many of these efforts to seek help would occur outside the purview of supervisors and particular coworkers. In light of these considerations, we believe that the method adopted in our study was an appropriate way to investigate whom individuals would seek out for help within this context.

Adopting this measurement approach for our dependent variable, however, did result in some of our independent and dependent variables being provided from the same source. In particular, the ratings of help provider expertise, trust, and access were provided by the same person as the help-seeking dependent variable. Our original hope was to separate these ratings in time, but the participating organization allowed the distribution of only one survey due to concerns about disrupting work flow and diminishing response rates. The most significant concern with this type of data is that common method variance would artificially inflate or otherwise affect the observed relationships. It should be noted here, however, that the relationship between these variables provided by the same source included complex interactions, which cannot be artifacts of common method variance (Evans, 1985). Thus, it appears unlikely that common method variance overly influenced the observed relationships between our interpersonal characteristics (i.e., trust, expertise, and access) and help-seeking. Furthermore, our mediated relationships involved factual data (i.e., job experience and fulfilling a formal work role), which are not subject to common method concerns (Doty & Glick, 1998; Podsakoff & Organ, 1986), and these data were provided by a different source (target nurse) than the dependent variable (potential help-seekers).

Nevertheless, we strongly encourage researchers to obtain multisource data on help-seeking in future studies. It will also be important to examine the extent to which the help that seekers obtain is actually accurate, useful, and effective. Because even experts are fallible, there may be situational and individual variations in the quality of help that seekers receive. This, in turn, is likely to have direct implications for error prevention and management. These links deserve attention in further research.

Another limitation worth noting is that we did not find support for our hypothesis suggesting that individuals with higher affective organizational commitment would be perceived as more accessible (Hypothesis 4a). We hypothesized that those individuals more affectively committed to the organization would invest more time and energy in assigned and voluntary activities (e.g., working longer, working hard, and helping others), and therefore they

would be perceived as being more trustworthy and accessible. Although we found support for the relationship between affective commitment and trustworthiness, we did not find support for the relationship between affective commitment and accessibility. We encourage future researchers to investigate further the specific linkages between affective commitment, the behaviors resulting from this affective commitment, and the perceptions of others.

These limitations notwithstanding, there have been several recent discussions regarding the public health problem of medication errors (e.g., Bogner, 1994; Kohn et al., 2000; Rosenthal & Sutcliffe, 2002). One way to prevent adverse events is to ensure the presence of accessible expertise and help on the unit and ensure that individuals feel safe in seeking it out when needed. Our results build on other research in this area (e.g., Edmondson, 1999; Lee, 1997, 2002) by highlighting key variables associated with this help-seeking behavior. Although no single study will provide the definitive answer to this public health problem—that is, there will be no single magic bullet (e.g., Hofmann & Mark, 2006; Kohn et al., 2000)—the results of the current study highlight fruitful avenues for both research and practical application.

References

- Alkov, R. A., Borowsky, M. S., Williamson, D. W., & Yacovone, D. W. (1992). The effect of trans-cockpit authority gradient on Navy/Marine helicopter mishaps. *Aviation, Space, and Environmental Medicine*, *63*, 659–661.
- Allen, T. J. (1977). *Managing the flow of technology*. Cambridge, MA: MIT Press.
- Anderson, S. E., & Williams, L. J. (1996). Interpersonal, job, and individual factors related to helping processes at work. *Journal of Applied Psychology*, *81*, 282–296.
- Ashford, S. J., Blatt, R., & VandeWalle, D. (2003). Reflections on the looking glass: A review of research on feedback-seeking behavior in organizations. *Journal of Management*, *29*, 769–799.
- Ashford, S. J., & Cummings, L. L. (1983). Feedback as an individual resource: Personal strategies of creating information. *Organizational Behavior and Human Performance*, *32*, 370–398.
- Ashford, S. J., & Tsui, A. S. (1991). Self-regulation for managerial effectiveness: The role of active feedback seeking. *Academy of Management Journal*, *34*, 251–280.
- Austin, J. R. (2003). Transactive memory in organizational groups: The effects of content, consensus, specialization, and accuracy on group performance. *Journal of Applied Psychology*, *88*, 866–878.
- Bamberger, P. (in press). Employee help-seeking: Antecedents, consequences and new insights for future research. *Research in Personnel and Human Resources Management*.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173–1182.
- Bauer, D. J., & Curran, P. J. (2005). Probing interactions in fixed and multilevel regression: Inferential and graphical techniques. *Multivariate Behavioral Research*, *40*, 373–400.
- Bogner, M. S. (Ed.). (1994). *Human error in medicine*. Hillsdale, NJ: Erlbaum.
- Borgatti, S. P., & Cross, R. (2003). A relational view of information seeking and learning in social networks. *Management Science*, *49*, 432–445.
- Brandon, D. P., & Hollingshead, A. B. (2004). Transactive memory systems in organizations: Matching tasks, expertise, and people. *Organization Science*, *15*, 633–644.
- Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models: Applications and data analysis methods*. Newbury Park, CA: Sage.
- Bunderson, J. S. (2003). Recognizing and utilizing expertise in work groups: A status characteristics perspective. *Administrative Science Quarterly*, *48*, 557–591.
- Burke, R. J., Weir, T., & Duncan, G. (1976). Informal helping relationships in work organizations. *Academy of Management Journal*, *19*, 370–377.
- Callero, P. L. (1994). From role playing to role-using: Understanding role as resource. *Social Psychology Quarterly*, *57*, 228–243.
- Capers, B., & Lipton, C. (1993). Hubble space telescope disaster. *Academy of Management Review*, *7*, 23–37.
- Cross, R., Rice, R. E., & Parker, A. (2001). Informational seeking in social context: Structural influences and receipt of information benefits. *IEEE Transactions on Systems, Man, and Cybernetics—Part C: Applications and Reviews*, *31*, 438–448.
- Dawson, J. F., & Richter, A. W. (2006). Probing three-way interactions in moderated multiple regression: Development and application of a slope difference test. *Journal of Applied Psychology*, *91*, 917–926.
- DeCicco, J. (2008). Developing a preceptorship/mentorship model for home health care nurses. *Journal of Community Health Nursing*, *25*, 15–25.
- DePaulo, B. M., & Fisher, J. D. (1980). The costs of asking for help. *Basic and Applied Social Psychology*, *1*, 23–35.
- Doty, D. H., & Glick, W. H. (1998). Common methods bias: Does common method variance really bias results? *Organizational Research Methods*, *1*, 374–406.
- Dutton, J. E., Ashford, S. J., Wierba, R., O'Neill, R. M., & Hayes, E. (1997). Reading the wind: How middle managers assess the context for selling issues to top managers. *Strategic Management Journal*, *18*, 407–425.
- Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, *44*, 350–383.
- Edwards, J. R., & Lambert, L. S. L. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods*, *12*, 1–22.
- Evans, M. G. (1985). A Monte Carlo study of the effects of correlated method variance in moderated multiple regression analysis. *Organizational Behavior and Human Decision Processes*, *36*, 305–323.
- Faraj, S., & Xiao, Y. (2006). Coordination in fast-response organizations. *Management Science*, *52*, 1155–1169.
- Foushee, M. C. (1984). Dyads at 35,000 feet: Factors affecting group processes and aircraft performance. *American Psychologist*, *39*, 885–893.
- Frese, M. (1991). Error management or error prevention: Two strategies to deal with errors in software design. In H.-J. Bullinger (Ed.), *Human aspects in computing: Design and use of interactive systems and work with terminals* (pp. 776–782). Amsterdam: Elsevier.
- Galbraith, J. (1977). *Organization design*. Reading, MA: Addison-Wesley.
- Geddes, N., Salyer, J., & Mark, B. A. (1999). Nursing in the nineties: Managing the uncertainty. *Journal of Nursing Administration*, *29*, 40–48.
- Goodwin, V. L., & Ziegler, L. (1998). A test of relationships in a model of organizational cognitive complexity. *Journal of Organizational Behavior*, *19*, 371–386.
- Grant, A. M., & Ashford, S. J. (2008). The dynamics of proactivity at work. *Research in Organizational Behavior*, *28*, 3–34.
- Griffin, M. A., Neal, A., & Parker, S. K. (2007). A new model of work role performance: Positive behavior in uncertain and interdependent contexts. *Academy of Management Journal*, *50*, 327–347.
- Hackman, J. R. (1987). The design of work teams. In J. W. Lorsch (Ed.), *Handbook of organizational behavior* (pp. 315–342). Englewood Cliffs, NJ: Prentice Hall.
- Hackman, J. R., & Wageman, R. (2005). A theory of team coaching. *Academy of Management Review*, *30*, 269–287.

- Hinsz, V. B., Tindale, R. S., & Vollrath, D. A. (1997). The emerging conceptualization of groups as information processors. *Psychological Bulletin*, *121*, 43–64.
- Hofmann, D. A., Griffin, M. A., & Gavin, M. B. (2000). The application of hierarchical linear modeling to management research. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions* (pp. 467–511). San Francisco: Jossey-Bass.
- Hofmann, D. A., & Mark, B. A. (2006). An investigation of the relationship between safety climate and medication errors as well as other nurse and patient outcomes. *Personnel Psychology*, *59*, 847–869.
- Hofmann, D. A., Morgeson, F. P., & Gerrass, S. J. (2003). Climate as a moderator of the relationship between leader-member exchange and content specific citizenship: Safety climate as an exemplar. *Journal of Applied Psychology*, *88*, 170–178.
- Hoque, A., & Lohse, G. (1999). An information search cost perspective for designing interfaces for electronic communication. *Journal of Marketing Research*, *36*, 387–394.
- Katz, D., & Kahn, R. L. (1978). *The social psychology of organizations* (2nd ed.). New York: Wiley.
- Kohn, L. T., Corrigan, J. M., & Donaldson, M. S. (2000). *To err is human: Building a safer health system*. Washington, DC: National Academy Press.
- Larson, J. R., Jr., & Christensen, C. (1993). Groups as problem-solving units: Towards a new meaning of social cognition. *British Journal of Social Psychology*, *32*, 5–30.
- Leape, L. L. (1994). The preventability of medical injury. In M. S. Bogner (Ed.), *Human error in medicine* (pp. 13–25). Hillsdale, NJ: Erlbaum.
- Lee, F. (1997). When the going gets tough, do the tough ask for help? Help seeking and power motivations in organizations. *Organizational Behavior and Human Decision Processes*, *72*, 336–363.
- Lee, F. (2002). The social costs of seeking help. *Journal of Applied Behavioral Science*, *38*, 17–35.
- LePine, J. A., Erez, A., & Johnson, D. E. (2002). The nature and dimensionality of organizational citizenship behavior: A critical review and meta-analysis. *Journal of Applied Psychology*, *87*, 52–65.
- Libby, R., Trotman, K. T., & Zimmer, I. (1987). Member variation, recognition of expertise, and group performance. *Journal of Applied Psychology*, *72*, 81–87.
- Littlepage, G., Robison, W., & Reddington, K. (1997). Effects of task experience and group experience on group performance, member ability, and recognition of expertise. *Organizational Behavior and Human Decision Processes*, *69*, 133–147.
- MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annual Review of Psychology*, *58*, 593–614.
- 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.
- Maitlis, S. (2005). The social processes of organizational sensemaking. *Academy of Management Journal*, *48*, 21–49.
- Manasse, H. R., Jr., Turnbull, J. E., & Diamond, L. H. (2002). Patient safety: Review of the contemporary American experience. *Singapore Medical Journal*, *43*, 254–262.
- Manias, E., Aitken, R., Peerson, A., Parker, J., & Wong, K. (2003). Agency nursing work in acute care settings: Perceptions of hospital nursing managers and agency nurse providers. *Journal of Clinical Nursing*, *12*, 457–66.
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review*, *20*, 709–734.
- McAllister, D. J. (1995). Affect- and cognition-based trust as foundations for interpersonal cooperation in organizations. *Academy of Management Journal*, *38*, 24–59.
- McKnight, M., & Peet, M. (2000). Health care providers' information seeking: Recent research. *Medical References Services Quarterly*, *19*, 27–50.
- Meyer, J. P., Allen, N., & Smith, C. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, *78*, 538–551.
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, *61*, 20–52.
- Milanovich, D. M., Driskell, J. E., Stout, R. J., & Salas, E. (1998). Status and cockpit dynamics: A review and empirical study. *Group Dynamics: Theory, Research, and Practice*, *2*, 155–167.
- Mintzberg, H. (1973). *The nature of managerial work*. New York: Harper & Row.
- Mjos, K. (2004). Basic cultural elements affecting the team function on the flight deck. *International Journal of Aviation Psychology*, *14*, 151–169.
- Morrison, E. W. (1994). Role definitions and organizational citizenship behavior: The importance of the employee's perspective. *Academy of Management Journal*, *37*, 1543–1567.
- Morrison, E. W. (2002). Information seeking within organizations. *Human Communication Research*, *28*, 229–242.
- Morrison, E. W., & Vancouver, J. B. (2000). Within-person analysis of information seeking: The effects of perceived costs and benefits. *Journal of Management*, *26*, 119–137.
- Nadler, A., Ellis, S., & Bar, I. (2003). To seek or not to seek: The relationship between help seeking and job performance evaluations as moderated by task-relevant expertise. *Journal of Applied Social Psychology*, *33*, 91–109.
- Nagy, M. S. (2002). Using a single-item approach to measure facet job satisfaction. *Journal of Occupational and Organizational Psychology*, *75*, 77–86.
- O'Reilly, C. A., III. (1982). Variation in decision-makers' use of information sources: The impact of quality and accessibility of information. *Academy of Management Journal*, *25*, 756–771.
- Pelz, D. C., & Andrews, F. M. (1966). *Scientists in organizations: Productive climates for research and development*. New York: Wiley.
- Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, *26*, 513–563.
- Podsakoff, P., & Organ, D. (1986). Self reports in organization research. *Journal of Management*, *12*, 531–544.
- Ridgeway, C. (1984). Dominance, performance, and status in groups: A theoretical analysis. In E. Lawler (Ed.), *Advances in group processes: Vol. 1. Theory and research* (pp. 59–93). Greenwich, CT: JAI Press.
- Rosenthal, M. M., & Sutcliffe, K. M. (Eds.). (2002). *Medical error: What do we know? What do we do?* San Francisco: Jossey-Bass.
- Schmidt, F. L., Hunter, J. E., & Outerbridge, A. N. (1986). Impact of job experience and ability on job knowledge, work sample performance, and supervisory ratings of job performance. *Journal of Applied Psychology*, *71*, 432–439.
- Seamster, T. L., Redding, R. E., Cannon, J. R., Ryder, J. M., & Purcell, J. A. (1993). Cognitive task analysis of expertise in air traffic control. *International Journal of Aviation Psychology*, *3*, 257–283.
- Sonnetag, S. (1998). Expertise in professional software design: A process study. *Journal of Applied Psychology*, *83*, 703–715.
- Spath, M., & Buttler, L. (1996). Brief communications: Information and research needs of acute-care clinical nurses. *Bulletin of the Medical Library Association*, *84*, 112–116.
- Staw, B. M., Sutton, R. I., & Pelled, L. H. (1994). Employee positive emotion and favorable outcomes at the workplace. *Organization Science*, *5*, 51–71.
- Steiner, I. D. (1972). *Group process and productivity*. New York: Academic Press.

- Stewart, K. L. (1978). What a university ombudsman does: A sociological study of everyday conduct. *Journal of Higher Education, 49*, 1–22.
- Sturman, M. C. (2003). Searching for the inverted U-shaped relationship between time and performance: Meta-analysis of the experience/performance, tenure/performance, and age/performance relationships. *Journal of Management, 29*, 609–640.
- Taylor, A., & Greve, H. R. (2006). Superman or the Fantastic Four? Knowledge combination and experience in innovative teams. *Academy of Management Journal, 49*, 723–740.
- Tucker, A., & Edmondson, A. (2003). Why hospitals don't learn from mistakes: First-order problem solving in service organizations. *California Management Review, 45*, 1–18.
- Urquhart, C., & Crane, S. (1994). Nurses' information-seeking skills and perceptions of information sources: Assessment using vignettes. *Journal of Information Science, 40*, 237–246.
- U.S. Department of Health & Human Services, Health Resources and Services Administration. (2004). *The registered nurse population: Findings from the March 2004 National Sample Survey of Registered Nurses*. Retrieved March 12, 2008, from <http://bhpr.hrsa.gov/healthworkforce/rmsurvey04/>
- Vancouver, J. B., & Morrison, E. W. (1995). Feedback inquiry: The effect of source attributes and individual differences. *Organizational Behavior and Human Decision Processes, 62*, 276–285.
- Van der Vegt, G. S., Bunderson, J. S., & Oosterhof, A. (2006). Expertness diversity and interpersonal helping in teams: Why those who need the most help end up getting the least. *Academy of Management Journal, 49*, 877–893.
- Van Dyck, C., Frese, M., Baer, M., & Sonnentag, S. (2005). Organizational error management culture and its impact on performance: A two-study replication. *Journal of Applied Psychology, 90*, 1228–1240.
- Wanous, J. P., & Hudy, M. J. (2001). Single-item reliability: A replication and extension. *Organizational Research Methods, 4*, 361–375.
- Wanous, J. P., Reichers, A. E., & Hudy, M. J. (1997). Overall job satisfaction: How good are single-item measures. *Journal of Applied Psychology, 82*, 247–252.
- Weick, K. E. (1990). Technology as equivoque: Sensemaking in new technologies. In P. S. Goodman (Ed.), *Technology and organizations* (pp. 1–44). San Francisco: Jossey-Bass.
- Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (1999). Organizing for high reliability: Processes of collective mindfulness. *Research in Organizational Behavior, 21*, 81–123.
- Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization Science, 16*, 409–421.
- Wiener, E. L., Kanki, B. G., & Helmreich, R. B. (1993). *Cockpit resource management*. San Diego, CA: Academic Press.
- Williams, K. B., & Williams, K. D. (1983). Social inhibition and asking for help: The effects of number, strength, and immediacy of potential help givers. *Journal of Personality and Social Psychology, 44*, 67–77.
- Wills, T. A., & DePaulo, B. M. (1993). Interpersonal analysis of the help-seeking process. In C. R. Snyder & D. R. Forsyth (Eds.), *Handbook of social and clinical psychology* (pp. 350–375). New York: Pergamon.
- Withey, M., Daft, R. L., & Cooper, W. H. (1983). Measures of Perrow's work unit technology: An empirical assessment of a new scale. *Academy of Management Journal, 26*, 45–63.
- Wrzesniewski, A., Dutton, J. E., & Debebe, G. (2003). Interpersonal sensemaking and the meaning of work. *Research in organizational behavior, 25*, 93–135.

Appendix A

Survey Measures

Measures of Trust, Expertise, and Access

After reading each of the following definitions, respondents were asked to rate a number of other nurses on the dimensions of trust, expertise, and accessibility.

Definition of trust. The extent to which you have an open and trusting interpersonal relationship with this person. For example, a relationship dictated by high trust would be one where you are willing to openly discuss work-related problems, doubts, etc. (i.e., you would be willing to be vulnerable regarding your innermost thoughts and fears). Relationships marked by a lack of interpersonal trust would be those where you purposely maintain your distance and keep any and all communications at the very surface level.

Trust question. I have an open, trusting relationship with this person.

Definition of expertise (competence-based trust). This type of trust is based on your assessment of another person's capability, competence, and knowledge. In other words, this is trust based on your evaluation of this person's ability to carry out obligations and their overall work-related reliability, dependability, competency, and knowledge.

Expertise question. I have confidence in this person's skill, competence, expertise, and knowledge.

Definition of accessibility. The extent to which you can access another person's knowledge is on a continuum. At one end are people who do not make themselves available to you quickly enough to solve your problem. At the other end are those individuals who are willing to engage actively in problem solving with you in a timely manner. With this continuum in mind, to what extent is this person's knowledge accessible to you?

Accessibility question. I have access to this person's knowledge.

Measure of Whom Respondent Would Seek Out for Help

Respondents were asked to rate each of the nurses listed regarding the degree to which they would approach them for help after reading each of the following situations.

Situation 1. Think about a work-related situation where you need some advice about what to do prior to taking any action. An example would be a complex dressing change or some similar action where you have a question about how to apply it to a patient with an unusual condition, and you want to ask someone what you should do to make sure you do the right thing. To what extent would you seek out each of the following individuals?

(Appendixes continue)

Situation 2. Now think of a situation where you have taken action on a patient and where the patient is responding in an unfamiliar or unexpected way. Assume that it is not currently an emergency situation, but you would like to seek out an informal consult regarding the situation. An example might be a situation where you administer the correct medication, but the patient seems to be experiencing significant diaphoresis or some similar complicating symptom. You want to seek out someone's input in diagnosing this situation and identifying next steps. To what extent would you seek out each of the following individuals?

Situation 3. Now think about a situation where you have inadvertently made an error in patient care. Assume that it is not currently an emergency situation, but you would like to seek out an informal consult regarding the situation. An example of this situation might be

where a patient has a significantly abnormal lab report that you forgot to bring to the attention of the physician, or where you missed the administration of a dose of a routine cardiac medicine. To what extent would you seek out each of the following individuals?

The same response scale was used for all three situations:

1 = *I would definitely not seek out this person.*

2 = *I would probably not seek out this person.*

3 = *I might seek out this person.*

4 = *I would seek out this person.*

5 = *I would definitely seek out this person.*

Appendix B

Data Structure for Level 1 and Level 2 Analyses

The lower two levels of the data were structured such that the Level 1 data consisted of multiple ratings of a target nurse (i.e., a potential help provider) provided by other nurses. In other words, the within-nurse analysis investigated the degree to which the interpersonal perceptions of several other nurses predicted the degree to which the target nurse would be sought out for help by each of these nurses. The Level 2 analyses investigated the extent to which characteristics of the target nurse (i.e., organizational commitment, formal job role, and job experience) predicted the degree to which the target nurse was sought out by others as well as the degree to which these effects were mediated by others' interpersonal perceptions of the target nurse. The following depicts an exemplar data structure for three nurses from the same survey group.

Level 2: Target Nurse A (organizational commitment, job role, job experience)

Level 1: Nurse B's willingness to approach Nurse A based on interpersonal perceptions (trust, expertise, access)

Level 1: Nurse C's willingness to approach Nurse A based on interpersonal perceptions (trust, expertise, access)

Level 1: Nurse D's willingness to approach Nurse A based on interpersonal perceptions (trust, expertise, access)

Level 2: Target Nurse B (organizational commitment, job role, job experience)

Level 1: Nurse A's willingness to approach Nurse B based on interpersonal perceptions (trust, expertise, access)

Level 1: Nurse C's willingness to approach Nurse B based on interpersonal perceptions (trust, expertise, access)

Level 1: Nurse D's willingness to approach Nurse B based on interpersonal perceptions (trust, expertise, access)

Level 2: Target Nurse C (organizational commitment, job role, job experience)

Level 1: Nurse A's willingness to approach Nurse C based on interpersonal perceptions (trust, expertise, access)

Level 1: Nurse B's willingness to approach Nurse C based on interpersonal perceptions (trust, expertise, access)

Level 1: Nurse D's willingness to approach Nurse C based on interpersonal perceptions (trust, expertise, access)

As can be seen above, it is possible that a given nurse would provide ratings of several other nurses. For example, Nurse A provided ratings of Nurses B and C, and Nurse B provided ratings of Nurses A and C. This introduces an additional source of variance resulting in nonindependent data across the Level 1 analyses. In order to control for this potential confound, we estimated an additional random effect for rater, which is included in Tables 2 and 3.

Received January 4, 2008

Revision received May 8, 2009

Accepted May 11, 2009 ■