

WHAT PREDICTS SUPPORT SELECTION:  
EXAMINING PERSONALITY AND GENDER

BY

BENJAMIN FRANKLIN ARMSTRONG III

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Approved By:

Lara K. Kammrath, Ph.D., Advisor

R. Michael Furr, Ph.D., Chair

Masumi Iida, Ph.D.

Eranda R. Jayawickreme, Ph.D.

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Benjamin Franklin Armstrong III

WHAT PREDICTS SUPPORT SELECTION:

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Thesis under the direction of Lara Kammrath, Ph.D., Professor of Psychology

Although research exists which examines whether people seek support in general and how they seek support from specific others, little research exists on how people seek support from among the many members of their social network when they're in need. Two novel aspects of support-seeking arise when one considers a person's entire network of potential supporters. The first is *how many* supporters a person seeks when a need arises. The second is how people choose *which* supporter(s) to seek. In order to investigate these issues, 171 participants were recruited for a daily diary study in which they reported on the people they had sought for support each day. We examined the effects of gender, Big Five personality traits and attachment style in predicting the number of supporters people sought per issue. In addition, we examined the effects of a potential supporter's past support quality, relational closeness and frequency of interaction in predicting the likelihood that the supporter would be selected. Gender, Big Five personality traits and attachment style were examined as potential moderators of this selection process.

## INTRODUCTION

Imagine the following story. Michael is wracked by guilt. He's been gambling, and doesn't know what to do. Should he tell his girlfriend that he lost all his money again? She'd be upset. She might leave him. Maybe he should hide it. He's just not sure. He should probably talk to someone. But who? It would have to be a friend. He couldn't bear to tell a family member about something like this. So which friend? It should be someone who knows about relationships. John? He's married, but he'd probably tell his wife, and Michael's not sure he wants her to know. Richie might be a good choice. He's gone through something similar himself, and he'd keep his mouth shut. Michael decides to talk to Richie and maybe his friend Greg after. Greg is a good listener. Michael knows he'll feel better if he talks to Greg.

In this story, Michael did a few things. He made a decision to seek support. He could have regulated his emotions in a number of different ways, but the strategy he used to cope with this issue was to seek social support. He next selected *whom* from among the individuals in his social network to seek support *from*. In the end, he also chose not one but two people. He felt that he couldn't get all he needed from just one person, so he chose to seek more support by going to multiple people.

Michael's decision to seek support is a topic well-examined in the psychological literature. This literature suggests that Michael is unusual, because men frequently try to cope with stress on their own (Ptacek, Smith, & Zanas, 1992), without seeking support. One might also predict that Michael is extraverted or agreeable – traits associated with more support seeking (Connor-Smith & Flachsbart, 2007), or perhaps Michael has low attachment avoidance (Mikulincer, Florian, & Weller, 1993), which is also associated with more support-seeking.

Research on support-seeking has primarily focused on whether support-seeking is used at all (i.e., coping strategy research: Carver & Connor-Smith, 2010) or the amount of support sought from a particular other (i.e., intimate relationship research: Simpson, Rholes, & Nelligan, 1992).

While both of these lines of research are important and have contributed much to our understanding of emotion regulation, coping, and close relationships, neither has investigated how people select one or more supporters to go to from the variety of potential support providers (PSPs) available to them within their social networks.

In this paper, we will investigate two novel aspects of support seeking that arise when one considers a person's entire network of potential supporters. The first is *how many* supporters a person seeks when a need arises. A person may seek support from a number of people for a single issue or from only one person, and this is likely influenced by that person's gender and personality. The second aspect of support seeking that we will investigate is how people choose *which* supporter(s) to seek. That is, what qualities of supporters make them more or less likely to be chosen, and are these choices influenced by the gender and personality of the chooser?

## **RESEARCH QUESTION 1**

### **How many supporters do people seek?**

Past research has focused broadly on the amount of support that people seek. However, amount can really mean two different things. It can mean the amount of support that is sought from a single person or the amount of support that is sought across multiple people. As mentioned previously, coping strategy research has looked at the amount of support sought in general (Carver & Connor-Smith, 2010), and close relationships research has looked at the amount of support one seeks from a single close other (Simpson et al., 1992), but no one has examined this other aspect of amount, the number of people one seeks. Prior research has shown that the use of social support is linked to higher well-being (Cohen & Hoberman, 1983; Collins & Feeney, 2000; Cox, 2012; Pinguart & Fröhlich, 2009). Seeking support from more people may also lead to improvements in well-being. If this were the case, then it would be important to know which characteristics of a person predict seeking support from a greater number of supporters.

What does past research tell us about the kinds of people that are more likely to seek support when issues arise? Past research has established some clear links between gender and personality and support-seeking in general (Carver & Connor-Smith, 2010). The novel question we examine in this paper is how gender and personality predict the *number* of supporters people seek. We hypothesize that individual differences in the number of supporters people approach for their issues are driven by differences in people's perceptions of the costs and benefits associated with disclosing their needs. Going to more supporters means disclosing one's needs to more people. Many theories of self-disclosure use a risk-reward model (Afifi & Guerrero, 2000; Rawlins, 1983; Rosenfeld, 1979) in which the rewards of disclosing (e.g., improved mood, increased closeness, etc.) are balanced against the risks (e.g., being viewed negatively, feeling embarrassed, hurting the relationship; Rawlins, 1983). Risks are pitted against rewards for every decision to disclose. These decisions are often far from clear-cut, and they can vary from person

to person. Rawlins (1983) argues that the primary factors that drive this decision are the strength of the need and the seeker's level of trust. Thus, we would expect individuals who either have a strong need for support or a high degree of trust in others to decide to disclose more often, and in particular we would expect them to seek out more people.

We think that it is possible that some aspects of personality and gender that predict support seeking more generally may also predict the number of PSPs people seek. With that in mind, we will take a moment to examine the current literature on personality and gender as they predict support-seeking. We will finish this section by hypothesizing about those aspects of personality and gender that are likely to specifically predict the number of PSPs people seek.

### **Literatures Linking Gender, Personality and Social Support-Seeking**

Past literature has shown that a seeker's personality traits, particularly his or her gender and his or her standing on attachment style dimensions and Big Five traits, are influential predictors of support seeking. These support-seeker characteristics have primarily been examined in two distinct literatures: the coping literature and the close relationships literature. The effects of a seeker's Big Five personality traits and gender have primarily been studied in the coping literature. In the coping literature, support-seeking appears as one of a number of strategies that a person might employ to cope with stressful situations and to regulate negative emotions. Coping studies typically use surveys that list a number of coping strategies, including seeking social support. The participant indicates whether and how much he or she used each strategy. The aim of such studies is to use these characteristics of the participant to predict whether and how much participants use a particular coping strategy when stressors arise (Ficková, 2001; McCormick, Dowd, Quirk, & Zegarra, 1998; McWilliams, Cox, & Enns, 2003).

The effects of a seeker's attachment style have primarily been examined in the close relationships literature. In this literature, social support is typically studied directly rather than in conjunction with other coping strategies. Close relationships researchers focus on support seeking and provision from one specific other, usually a romantic partner (Simpson et al., 1992;

Simpson, Rholes, Oriña, & Grich, 2002), and their methodologies include both survey research (Barbee, Cunningham, Winstead, & Derlega, 1993) and laboratory interaction studies (Simpson et al., 1992). Interestingly, when close relationship researchers do study support-seeking, they tend to look at the quality or manner in which support is sought rather than how much or how often social support is utilized as a strategy (e.g., Cutrona, 1996).

**Gender.** In work looking at coping strategies employed by men and women, it has been found that women utilize support-seeking more often than men (Bar-Tal, Lurie, & Glick, 1994; Felsten, 1998; Frydenberg & Lewis, 1993; Ptacek et al., 1992), and in work that examines close relationships, it has been found that it is easier for women to activate social support than it is for men (Barbee et al., 1993). In addition, a large meta-analysis showed that women are more likely than men to self-disclose (Dindia & Allen, 1992).

**Attachment.** Attachment theory describes individual differences in attachment along two dimensions: attachment avoidance and attachment anxiety (Bartholomew & Horowitz, 1991). Attachment theory predicts that individuals with highly avoidant attachment styles will be less likely to seek support during times of stress (Bowlby, 1980; Main & Goldwyn, 1984), and it has been shown that receiving social support can actually cause highly avoidant people to feel worse than receiving no support at all (Mikulincer & Florian, 1997). Avoidantly attached individuals are less likely to seek support from their romantic partners (Mikulincer et al., 1993; Simpson et al., 1992), and they are less likely to self-disclose (Mikulincer & Nachshon, 1991).

Attachment theory does not have a clear prediction for the support-seeking behavior of individuals with highly anxious attachment. Anxiously attached individuals are predicted to have a strong *desire* to seek support from close others, however this desire is often co-present with fears of rejection and worries about the strength or health of the relationship, which can attenuate actual support-seeking behavior (Bowlby, 1980; Main & Goldwyn, 1984). In the empirical literature, people with anxious attachment styles have not been consistently shown to seek more or less support from their partners (Jenkins & Tonigan, 2011; Simpson et al., 1992).

**Big Five personality traits.** The relationship between the Big Five personality traits and coping strategies was examined in detail by a recent meta-analysis of 165 samples conducted by Connor-Smith and Flachsbart (2007). This meta-analysis found that extraversion and agreeableness were each broadly linked to the use of social support. Extraversion was the strongest and most consistent predictor of support-seeking. Agreeableness was also positively related to the use of social support, however the effect size found in the meta-analysis was smaller and less consistent. Both extraversion and agreeableness are also positively associated with the tendency to self-disclose (Festa, McNamara Barry, Sherman, & Grover, 2012; Seidman, 2013). No consistent links were found between conscientiousness, neuroticism or openness to experience and support-seeking (Connor-Smith & Flachsbart, 2007).

**Issue severity.** In addition to the characteristics of a person that predict support-seeking, certain characteristics of situations also lead people to seek more or less support. Stress-level has been linked to the increased use of a variety of coping strategies including support-seeking (Li & Yang, 2009) and the severity of issues has been found to predict the likelihood of self-disclosure (Hinson & Swanson, 1993). In addition, it has been suggested that issue severity has an intensifying effect on support-seeking. In research on the effects of personality on coping behavior, it has been found that the effects of the Big Five traits tend to be stronger in samples that are under higher levels of stress (Connor-Smith & Flachsbart, 2007). It has been suggested that it is only under more severe circumstances that the influence of personality on coping fully emerges (Carver & Connor-Smith, 2010).

Just as the severity of issues influences the relationship between the Big Five and the use of social support as a coping strategy, so too should it influence the degree to which attachment is related to support-seeking behavior. The attachment system is traditionally described as being activated by stress (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1980). That is, the intensity of the issue one is facing is linked to the degree to which one's attachment system is

activated. A highly activated attachment system should make differences in support seeking that are related to attachment, particularly attachment avoidance, stronger and more evident.

### **Hypotheses**

**Psychological well-being.** We predict that just as seeking support in general is linked to increases in psychological well-being, so too will seeking support from more supporters show this same pattern. People often underestimate the likelihood that PSPs will help them if they ask (Flynn & Lake, 2008). People who seek more PSPs should, thus, open themselves to receiving more support overall. In addition, by seeking more PSPs, it is more likely that one or more of the PSPs one seeks will give higher quality support. For these reasons, we believe that seeking more PSPs per issue will predict next-day improvements in psychological well-being.

**Main effects of gender and personality.** In looking at the factors that predict the number of PSPs that people seek per issue, we think that we will find some of the same patterns that were shown in previous social support research as well as some new effects. We think that people who are agreeable, extraverted or low in avoidance will seek more PSPs per issue, because these traits are associated with higher levels of self-disclosure and with a positive orientation toward others, both in general and in times of need. We think that neuroticism and openness to experience will also predict seeking more PSPs – neuroticism because it is associated with a greater experience of negative emotionality (i.e., stronger support needs) and openness to experience, because it has been associated with a willingness to take more risks (McGhee, Ehrler, Buckhalt, & Phillips, 2012), which may make one more willing to risk the potential costs of going to a higher number of supporters in order to obtain the support one desires.

**Severity and personality.** As Carver and Connor-Smith suggested (2010), we believe that the aforementioned effects of extraversion, agreeableness, neuroticism, openness and attachment avoidance will be stronger as issues become more severe. Further, we plan to look at the effect of severity directly. We believe that people differ in the extent to which they react to

stress by seeking support and that differences in this “severity effect” can be predicted by gender and personality.

## **RESEARCH QUESTION II**

### **What kind of supporters do people select?**

*Support-selection decisions* are decisions made about *whom* to seek for support from among a person's social network. It seems clear that when we are deciding whom to seek, we consider characteristics of the people in our network, explicitly or implicitly. What characteristics, then, of a potential support provider (PSP) are most predictive of the PSP being selected by the support seeker? While PSPs have many characteristics, we think that three are particularly important: the quality of support that person has provided to the seeker in the past, how close that person is to the seeker and how frequently the seeker interacts with that person. We believe that each of these characteristics will be an important consideration for people who are selecting a PSP, but which will be most important, and will the answer to that question be the same for all people or will it vary?

Why does it matter which characteristic of a PSP will be most predictive of support-selection? We think that there may be an interesting dissociation between the way in which people use PSP characteristics in choosing supporters and the way in which the same PSP characteristics predict the effectiveness of the support one receives after one has chosen a supporter. A PSP's past support quality is likely to be a strong predictor of the effectiveness of current support. If that is the case, then when receiving highly effective support is the goal, prioritizing past support quality during selection would be in one's best interest. However, it is not unreasonable to think that when people are actually selecting supporters, they won't always prioritize past support quality. People may have other reasons for seeking support (e.g., increasing intimacy). They may have restricted options (some PSPs may be unavailable), or they may simply make poor decisions.

In the present paper we will examine which PSP characteristics are most predictive of both support-effectiveness and support-selection. We will also look at how gender and

personality (Big Five traits and attachment) moderate of the relationship between these three PSP characteristics and support-selection.

### **Literature on PSP Effectiveness and Selection**

Very little past research has directly examined how people make choices about who to seek for support when they have a need for support. Past research on support seeking has typically gone one of two routes: either using global seeking measurements, such as, “how much did you seek support from others for this issue?” or using specific seeking measurements, such as “how much support did you seek from your spouse tonight?” In order to look closely at how individuals select which person(s) to approach for support from among their many potential support providers we must broaden our focus to the person’s larger social network.

Social networks may be composed of a wide range of different types of people. Recent studies suggest that social networks include both informal ties like friends, family, romantic partners and neighbors and also formal ties like coworkers and other acquaintances (Mair & Thivierge-Rikard, 2010; McPherson, Smith-Lovin, & Cook, 2001). It’s clear that our social networks contain a variety of different types of people, however are all of these people potential sources of support? The answer is a resounding yes. The literature shows that people seek support from romantic partners (Shrout, Herman, & Bolger, 2006), close friends and family members (Levpušček, 2006; Ognibene & Collins, 1998). They also seek support from co-workers (Lin & Chiou, 2008) and non-close acquaintances (Girio-Herrera, Owens, & Langberg, 2013; Xie, Fang, Liu, Shen, & Lan, 2012). Since people can and do seek support from a variety of different types of people, they must be making choices about who among these supporters to select.

There have only been a few studies thus far that have examined support selection, and these have only been conducted in very specific contexts. For example, a recent study investigated the differences between single and multi-child families and found that individuals with fewer siblings were more likely to go beyond their close family and friends to fulfill their support needs (Gondal,

2012). A study of student teachers in Taiwan found that these student teachers were much more likely to go to peers than supervising teachers or administrators for support needs that were related to teaching (Hsu, 2005). These papers highlight that while support-selection research is not unheard of, it tends to be done in specific contexts. This phenomenon surely merits a broader and more systematic investigation.

In order to investigate the way that support-selection decisions are made, we decided to look at the characteristics of a PSP that might lead to that PSP being chosen for support. As no literature had looked at support-selection in this way before, we chose the characteristics we would look at based on a combination of past literature and our own intuitions. The characteristics we thought would be most important in predicting whether a PSP would be selected were the quality of their past support, their relational closeness and the frequency with which they and the seeker interacted.

**Quality of past support.** Some researchers have argued that the *amount* of support provided by a PSP is not as important as the *quality* of that support. Specifically, Collins et al. have defined high quality support as support that is sensitive to the recipient's actual needs rather than intrusive (Collins, Ford, Guichard, Kane, & Feeney, 2010; Collins, Guichard, Ford, & Feeney, 2006) and that leaves the recipient feeling affirmed, validated and understood (Collins et al., 2010). If a PSP provides support that is not of good quality, it can lead the recipient to feel inadequate, guilty or indebted (Gleason, Iida, Shrout, & Bolger, 2008). In other words, poor quality support can leave the seeker feeling worse than if they had not received any support at all. The quality of a PSP's past support is likely to be a strong predictor of the effectiveness of their current support, and for this reason, we would predict that pragmatic support seekers would consider past support quality when making support-selection decisions.

**Relational closeness.** There is some evidence to suggest that relational closeness is important for selection. In a recent study investigating the selection of primary caregivers by aging mothers it was found that mothers' expectations of support were more strongly predicted by

their emotional closeness to the potential supporter than by more practical considerations like availability (Pillemer & Sutor, 2006). Attachment theory proposes that when an individual feels the need for help or security, they will seek help or comfort from an attachment figure, who is by definition a close other (Ainsworth et al., 1978; Bowlby, 1980; Collins & Feeney, 2000). There is also evidence showing that relational closeness (and related variables such as inclusion of other in the self and intimacy) is associated with higher amounts of support provision in close relationships (Aron, Aron, Tudor, & Nelson, 1991; Collins & Feeney, 2000). Thus, relational closeness is likely to be an important PSP variable that seekers would consider when choosing whom from their social network to seek for support.

**Frequency of interaction.** We have already submitted that relational closeness and past support quality are likely to be important factors that people consider when they choose whom to seek for support. We have research to suggest that they are important in support-seeking generally. However, this evidence comes primarily from the close relationships literature, which focuses on relationships that are moderately to highly close. But are our closest relations the people who provide the majority of the support we seek and receive on a day-to-day basis? Do support-seekers consistently seek out those individuals in their lives with whom they are closest and from whom they have received the best quality past support? For most issues, it is certainly possible that individuals seek support from the people in their lives that they see and interact with most often. Proximity and familiarity have been widely shown to predict social interactions with others and the formation of new relationships (Back, Schmukle, & Egloff, 2008; McPherson et al., 2001). For relationships that have already been formed, it is not unreasonable to think that individuals would seek support from those people with whom they are most frequently in contact. Thus frequency of interaction is likely an important factor in support-selection decisions.

### **Hypotheses**

**PSP characteristics and effectiveness.** Given that past performance is the best predictor of future outcomes, we think that past support quality will be our strongest predictor of current

support effectiveness. Beyond past support quality, we think that people may perceive the support they receive from close others to be more effective, as the people that are closest to us often care about our problems the most. We think that the frequency with which we interact with PSPs is largely determined by circumstances unrelated to support effectiveness (where you work, where you go to school, etc.), and for this reason we have no reason to believe that supporters that people interact with more frequently will be more effective than supporters people interact with less frequently, once closeness and past support quality are controlled.

**PSP characteristics and selection main effects.** We think that it is likely that frequency of interaction will be the strongest predictor of supporter selection. Especially when support needs are mundane (as most support needs are), it makes sense that people will seek out those people that are most easily accessible. Closeness is also likely to be an important predictor of selection. Prior literature suggests that people are more likely to seek support from those to whom they are closest. It is unclear whether past support quality will also be a significant predictor of support selection. The literature suggests that considering past support quality when selecting a supporter would be beneficial, but no one has yet examined whether this is something that people actually do.

**Interactions: gender, personality and support selection decisions.** We believe that it is possible that gender and personality are associated with different reasons for seeking support, which could lead to different patterns of choices among PSPs. For example, people who are more neurotic may be less patient about getting their needs fulfilled, and thus might prioritize frequency more highly in selecting a PSP. Conversely, people high in attachment anxiety might prioritize closeness more highly, because they are more fearful of revealing their needs to people they are not close to. These are just examples, and any ideas that we might have going into this analysis are highly speculative, but if these types of patterns, those that link gender and personality to the characteristics of PSPs that people find most important, that we will be examining in the second part of this paper.

## THE PRESENT STUDY

We conducted a longitudinal study to track the support-seeking decisions individuals make each day. We collected gender and personality information (Big Five traits and attachment dimensions) on participants and then had them make a list of the 15 people in their support network that they felt they were most likely to seek support from during the course of the study. They rated these potential support providers (PSPs) on a variety of dimensions including past support quality, relational closeness and frequency of interaction. For the next two weeks participants were asked to fill out a daily questionnaire in which they described specific issues for which they had sought support and indicated whom they had selected to seek out for support for each issue. Using this data, we will explore first how gender and personality predict *how many* supporters are sought per issue and then how gender and personality interact with PSP characteristics to influence support selection. These two research questions will be addressed separately with a results and discussion section for each.

## METHOD

### Participants

Participants were 171 (77 male, 94 female) Wake Forest University students. They were recruited using flyers. Participants ranged in age from 18 to 43 ( $M = 20.13$ ,  $SD = 2.54$ ). This sample does not include 34 participants who did not meaningfully participate in the study. We define meaningful participation, in this case, as having completed our intake survey and at least 2 out of 14 daily surveys.

### Procedure Overview

The present study was conducted in three phases: an intake phase in which participants provided personality and background measures in the lab, a diary phase in which participants filled out daily questionnaires on their personal computers, and an exit phase in which participants filled out a final questionnaire on their personal computer. In the intake phase, participants were brought into the lab and asked to fill out an online questionnaire on their laptops. This questionnaire began with a series of measures assessing their beliefs, attitudes and personality. They were then told that they were going to be participating in a *support-seeking* study. Support-seeking was explained to participants with the following instructions:

“In this study we will be studying support-seeking. For the purposes of this study, support seeking is any behavior in which you are seeking help or support from another person. The identifying characteristic of these behaviors is need. This need could be something tangible like a ride home from school or something intangible like advice, comfort or ‘someone to listen.’ For the purposes of this study the key factor of support seeking is that you made a decision to seek support. It is important that this was your decision and not a requirement or expectation. For example, calling your mother on her birthday is not support seeking, but asking her for advice during that conversation would be. Asking a

friend to help you study or going to see a professor outside of class would also count as support-seeking, because you made a decision to seek support.”

Following these instructions, participants were asked to list 15 potential support providers (PSPs) in order of closeness. They were told that these should be the 15 people that they were most likely to go to for support in the following two weeks. PSPs were listed by initials, gender and relationship to the participant. After this list had been collected, participants were asked a series of questions about the participant’s relationship with each PSP, including questions about past support quality, closeness, and frequency of interaction.

Following the intake questionnaire, participants were asked to complete 14 daily surveys over the following 2 weeks. Surveys were to be taken in the evening and could be completed in a location of the participant’s choosing. Surveys were administered via our website and participants were sent email reminders each day to complete a daily survey. Participants who had completed fewer than 14 daily surveys in the 2 week period were allowed to continue answering surveys during a subsequent 3<sup>rd</sup> week. Each daily survey began with measures of mood and psychological well-being. Participants were then asked to list at least two issues for which they had sought support that day and rate the severity of each one. If more than two issues were listed, exactly two were chosen by the web application for subsequent questions; the most severe issue was always chosen (ties were broken randomly) and another issue was chosen at random. For each of the two issues, the participant was asked questions about how they had coped and what type of support they had sought. They were then shown the list of PSPs that they had provided at intake and asked to select which PSPs they had sought or tried to seek for support. Multiple PSPs could be selected. Following the PSP selection questions, they were asked additional questions about the PSPs they had sought.

After completion of the intake questionnaire and at least 12 daily surveys, participants were asked to complete a brief exit interview. This interview consisted of an online survey in

which participants retook several measures from the intake and were asked additional questions regarding their participation in this study.

### **Intake Materials**

In the intake session, participants were given a series of surveys, which measured aspects of their personality, attitudes and beliefs. They were also asked to list the 15 people they were most likely to seek out for support over the next two weeks.

**Background measures.** Participants were given the following scales which measured their personality traits, beliefs and attitudes.

***Big Five Aspect Scale (BFAS).*** The BFAS (DeYoung, Quilty, & Peterson, 2007) is a 100-item measure used to measure a person's personality traits. The measure consists of five 20-item sub-scales measuring each of the Big Five traits: Extraversion (alpha = .84), Neuroticism (alpha = .92), Conscientiousness (Alpha = .89), Agreeableness (alpha = .86) and Openness to Experience (alpha = .83). Participants are asked to rate the extent to which they agreed with statements related to each of these traits. Each item is rated on a 5-point likert scale ranging from "disagree strongly" to "agree strongly." Example items include "I make friends easily" (extraversion) and "I find it difficult to get down to work" (conscientiousness).

***Short attachment measure (PAM).*** The PAM (Berry, Wearden, Barrowclough, & Liversidge, 2006) is a 16 item measure used to measure adult attachment (in general, rather than in a specific relationship). It is broken down into two 8-item subscales, one measuring attachment anxiety and the other measuring attachment avoidance. Each item is a statement which describes how the participant relates to close others. Participants are asked to rate the extent to which these items describe them. Items are rated on a 4-point likert scale ranging from "not at all like me" to "very much like me." Example items include "It helps me to turn to other people when I'm stressed" (attachment avoidance) and "I worry a lot about my relationships with other people (attachment anxiety). The attachment anxiety subscale had an alpha of .78. The attachment avoidance subscale had an alpha of .77.

**Other measures.** The following measures were also administered in this study but will not be included in the present analysis: World Assumption Scale (Janoff-Bulman, 1989), Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988), Coping Style (Brief COPE; Carver, 1997), Basic Need Satisfaction in General Scale, (Gagné, 2003), Supportedness (single item) and Self-esteem (single item).

**PSP questions.** Participants were asked to give information about each of the 15 PSPs that they listed at the start of the intake survey. This included demographic information as well as ratings of various aspects of their relationship with each PSP. Unless otherwise noted, all PSP items were rated on a 7-point scale, though anchors varied from item to item.

**Quality of past support.** Quality of past support was assessed with the question “In your opinion, what has been the quality of this person’s support?” Anchors ranged from 1 (worst) to 7 (best).

**Closeness.** Closeness was assessed with the question “In your opinion, how close are you to this person?” Anchors ranged from 1 (not at all) to 7 (tremendously).

**Frequency of interaction.** Frequency of interaction was assessed with the question “How often do you interact with this person?” Anchors ranged from 1 (once a month or less) to 7 (at least once a day).

**Other PSP questions.** Other information collected about each PSP included: length of relationship, caring, commitment, satisfaction, trust, relationship-specific attachment avoidance and attachment anxiety, frequency of past support receipt, frequency of past support provision and sense of obligation. These additional items will not be used in analyses reported in this paper. A full list of PSP questions collected at intake is provided in Appendix A.

### **Daily Survey**

Each evening participants were asked to fill out an online survey. They began by answering questions about their general mood and outlook that day. Next, they listed issues for

which they had sought support during the day. Our computer system selected two issues from the participants' lists, and participants were asked additional questions about these two issues.

**Profile of Mood States.** The POMS (McNair, D., Lorr, M., & Droppleman, L., 1971) is a 15 item measure used to measure a person's current mood. Each item is a mood adjective. Participants were asked to rate the extent to which they felt each mood in the last 24 hours. Items were rated on a 5-point likert scale ranging from "not at all" to "extremely." Example items include "Anxious," "Worn out" and "Cheerful" (Alpha = .91).

**Psychological well-being items.** Several daily items, described below, were included to assess participants current level of psychological well-being each day. Each item asked to what extent the participant agreed with the statement and was measured on a 7-point likert scale ranging from "Strongly disagree" to "Strongly agree".

**Supportedness.** The extent to which the participant felt supported was assessed using the statement, "Today, it feels like there is support available for me when I need it."

**Optimism.** The extent to which the participant felt optimistic about the future was assessed using the statement, "Today, I feel optimistic about the future."

**World positivity.** The extent to which the participant felt positive about the world was assessed using the statement, "Today, the world feels like a positive place."

**Self-esteem.** The extent to which the participant had high state self-esteem was assessed using the statement, "Today, I have high self-esteem."

**Issue severity.** Issue severity was measured with a single item in which participants were asked to rate each issue they had listed for "level of stress." This item was rated on a 7-point scale ranging from "None" to "Extreme."

**PSP selection report.** Participants were shown a list of the PSP they had listed at intake. This list consisted of each PSP's initials, gender and relationship to the participant. Participants were asked to select the PSPs they had sought for each issue. They separately indicated those PSPs they had "sought and reached" and those they had "sought but not reached". All analyses in

the present work use only those PSPs who were “sought and reached.” In addition, they were asked to select the contact medium they had used or tried to use. Contact mediums included: “in person,” “phone,” “IM/text,” “email/letter”.

**Received support effectiveness.** For each PSP that the participant indicated they had successfully sought for support for each issue, they were asked to rate the effectiveness of the support the PSP then provided. This was measured with a single item, “In your opinion, how effective was the support you got from this person?” The item was rated from 1 (not at all effective) to 7 (extremely effective).

**Other measures.** In addition to the daily measures previously listed, we also collected information on the type of support the participant sought (i.e., informational, instrumental, esteem or physical comfort) and had participants provide ratings of supporters they had sought and a selection of supporters they had not sought. A full list of these questions is provided in Appendix B and Appendix C.

### **Exit Questionnaire**

In the exit questionnaire, participants were reassessed on the following measures: Positive and Negative Affect Schedule (PANAS), Short Attachment Style (PAM), Basic Need Satisfaction in General Scale (BNSG-S), Satisfaction with Life Scale (SWLS), Self-esteem (single item) and Supportedness (single item).

## **RESULTS I**

### **Number of PSPs Sought per Issue**

#### **Data Structure and Analysis Plan**

Each day, participants indicated whom they had successfully sought for support for each of two issues. For each issue we summed the total number of PSPs the participant successfully sought for that issue. Each participant provided between 4 and 28 issues over the course of 2-14 days. Thus, the dataset had a multi-level structure with issues as level one, days as level two and participants as level three. To examine this data, we ran multilevel models using the statistical program R.

As described in Pinheiro and Bates (2000, p. 83), model comparisons were run to determine which grouping variables were significant in this dataset and should be included as random intercepts. These comparisons revealed that the grouping variables participant and day both added significantly to our model. Thus, all analyses predicting the number of PSPs sought were conducted with random intercepts for participant and day. Degrees of freedom for all analyses were calculated using the “inner-outer” method described in Pinheiro and Bates (2000, p. 91).

Our first question was whether seeking more PSPs for an issue produced an increase in psychological well-being. In order to assess this, we ran a multilevel model using the number of PSPs sought for an issue to predict next day psychological well-being variables controlling for same-day psychological well-being variables.

Our second question was whether the number of PSPs sought was predicted by issue severity, gender and/or personality. We first looked at the effect of issue severity (level 1) on the number of PSPs sought. Issue severity represents the within-person mean-centered ratings of the severity of issues. We looked at the main effects of gender and personality (level 3), and then examined the extent to which personality moderated the effect of severity. Gender was tested as

a moderator for all interactions between personality characteristics and severity. It is reported only where significant.

### **Do PSPs Per Issue Predict Positive Outcomes?**

On average, people tended to seek between one and three PSPs per issue ( $M = 1.62$ ,  $SD = 1.02$ ). We predicted next-day psychological well-being variables using number of PSPs sought per issue, controlling for same-day psychological well-being variables. These analyses were conducted using a random intercept for participant only (an intercept could not be included for day as this was the level of the outcome variable).

The number of PSPs sought significantly predicted next-day positive changes in self-esteem,  $b = .057$ ,  $t(165) = 2.34$ ,  $p = .02$ , in optimism,  $b = .059$ ,  $t(165) = 2.33$ ,  $p = .02$ , and in world positivity,  $b = .073$ ,  $t(165) = 2.94$ ,  $p = .004$ . It marginally predicted positive changes in feelings of supportedness,  $b = .048$ ,  $t(165) = 1.90$ ,  $p = .06$ . It did not predict positive changes in mood (as measured by the POMS),  $b = .01$ ,  $t(165) = 1.10$ ,  $p = .27$ .

### **Who Seeks More PSPs Per Issue?**

**Severity.** People sought more PSPs for support for issues that were more severe,  $b = .086$ ,  $t(1616) = 8.42$ ,  $p < .001$ .

**Gender.** Women sought significantly more PSPs per issue than men,  $b = .23$ ,  $t(169) = 2.81$ ,  $p = .005$ .

**Attachment.** Attachment anxiety was not associated with seeking more or fewer PSPs per issue,  $b = .04$ ,  $t(169) = .94$ ,  $p = .35$ . Attachment avoidance was significantly associated with seeking fewer PSPs per issue  $t(169) = -2.12$ ,  $p = .04$ . This avoidance effects held when controlling for attachment anxiety.

**Big Five traits.** Extraversion was positively but not significantly associated with seeking more PSPs per issue  $b = .06$ ,  $t(169) = 1.52$ ,  $p = .13$ . Agreeableness was significantly associated

with seeking more PSPs per issue,  $b = .09$ ,  $t(169) = 2.14$ ,  $p = .03$ .<sup>1</sup> Neuroticism was marginally associated with seeking more PSPs per issue,  $b = .07$ ,  $t(169) = 1.69$ ,  $p = .09$ . Conscientiousness was not significantly associated with the number of PSPs sought per issue,  $b = -.03$ ,  $t(168) = -.83$ ,  $p = .41$ . Openness was marginally associated with seeking more PSPs per issue,  $b = .07$ ,  $t(169) = 1.66$ ,  $p = .10$ .

### Moderators of the Severity Effect on Seeking More PSPs Per Issue

In the following analyses, we examined how the effect of issue severity on number of PSPs sought was moderated by gender and personality.

**Gender.** The severity effect was greater for women,  $b = .15$ ,  $t(1613) = 7.79$ ,  $p < .001$ , than it was for men,  $b = .09$ ,  $t(1613) = 3.81$ ,  $p = .001$ ,  $t(167) = 2.06$ ,  $p = .04$ . See Figure 1.

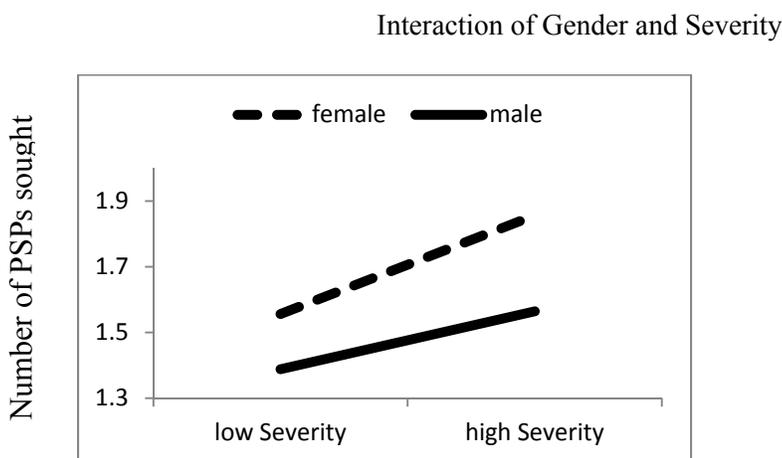


Figure 1. Number of PSPs sought according to issue severity for men and women.

**Attachment.** Attachment anxiety did not significantly interact with issue severity.

Attachment avoidance, on the other hand, did significantly interact with severity,  $t(167) = -3.10$ ,  $p = .002$ . When issues were more severe, people sought more PSPs per issue, and this effect was

<sup>1</sup> This agreeableness effect became non-significant, however, when gender was included in the model,  $b = .06$ ,  $t(169) = 1.52$ ,  $p = .16$ . Women were more likely to be agreeable,  $t(169) = 3.86$ ,  $p < .001$ , and women sought more PSPs per issue. The agreeableness effect was thus explained, at least in part, by gender.

more pronounced for people low in avoidance,  $b = .117$ ,  $t(1613) = 8.19$ ,  $p < .001$ , than for those high in avoidance,  $b = .056$ ,  $t(1613) = 3.96$ ,  $p < .001$ . See Figure 2.

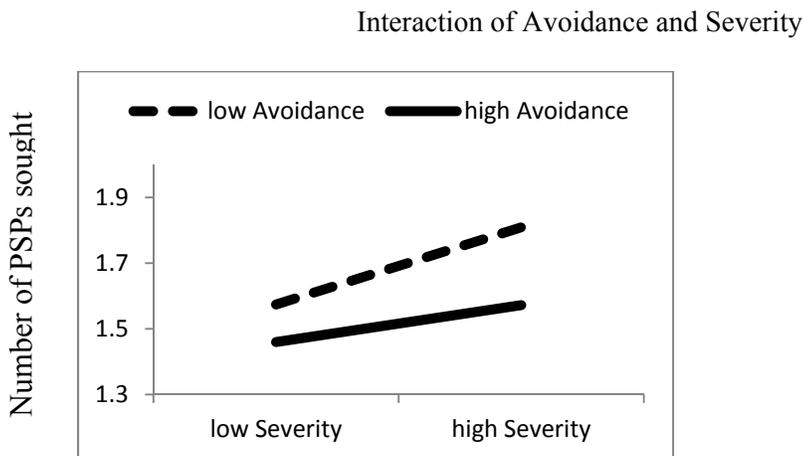


Figure 2. Number of PSPs sought according to issue severity for those low and high in avoidance.

The interaction between avoidance and issue severity was further moderated by gender,  $t(163) = -.204$ ,  $p = .04$ . See Figure 3. For women, the association between severity and number of PSPs sought per issue was more pronounced for individuals who were less avoidant than those who were more avoidant,  $t(163) = -3.64$ ,  $p < .001$ . Interestingly, men did not show this pattern. For men, the effect of severity on the number of PSPs sought per issue was similar regardless of their level of avoidance,  $t(163) = -.223$ ,  $p = .82$ . Both low and high avoidant men behaved similarly to high avoidant women.

**Big Five Traits.** Only two big five traits moderated the effect of issue severity on number of PSPs, namely extraversion and openness. Extraversion significantly interacted with severity,  $t(163) = 2.20$ ,  $p = .03$ , such that there was a stronger severity effect for people who were more

extraverted,  $b = .110$ ,  $t(167) = 7.37$ ,  $p < .001$ , than for people who were less extraverted,  $b = .065$ ,  $t(1613) = 4.55$ ,  $p < .001$ .<sup>2</sup>

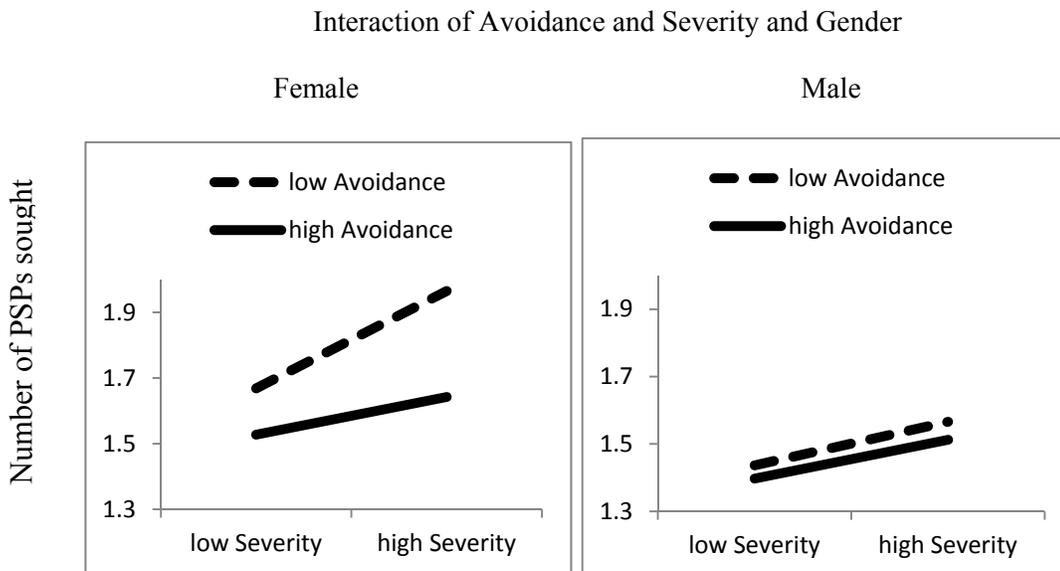


Figure 3. Three-way interaction between issue severity, avoidance and gender predicting number of PSPs sought per issue.

In fact, the effect of extraversion on number of PSPs sought, which had been only a trend in our earlier analysis, became significant for high severe issues,  $b = .10$ ,  $t(167) = 2.18$ ,  $p = .03$ . See Figure 4.

There was a marginal 2-way interaction between openness and issue severity,  $t(169) = -1.80$ ,  $p = .07$ . The severity effect was stronger for those lower in openness,  $b = .103$ ,  $t(1613) = 7.47$ ,  $p < .001$ , than it was for those higher in openness,  $b = .068$ ,  $t(1613) = 4.68$ ,  $p < .001$ . See Figure 5.

<sup>2</sup> This interaction held when all other Big Five traits were included in the model. However, extraversion was significantly negatively correlated with attachment avoidance,  $r(169) = -.46$ ,  $p < .001$ . When attachment avoidance and its interaction with severity were added to the model, the interaction between extraversion and severity became non-significant,  $t(165) = .082$ ,  $p = .93$ . Thus, it is likely that the positive effect of extraversion on PSP seeking was entirely due to its association with low attachment avoidance.

## Interaction of Extraversion and Severity

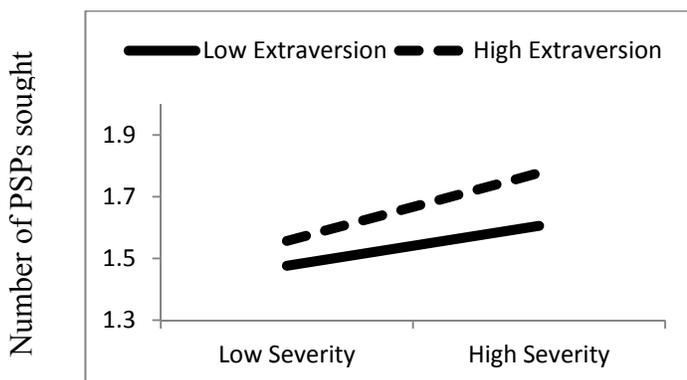


Figure 4. Number of PSPs sought according to issue severity for those low and high in extraversion.

## Interaction of Openness and Severity

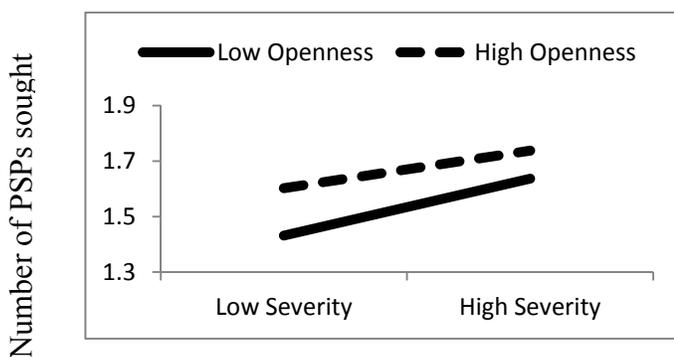


Figure 5. Number of PSPs sought according to issue severity for those low and high in openness.

The interaction between openness and issue severity was further moderated by gender,  $t(163) = -2.74, p = .007$ , as shown in Figure 6. Women who were low in openness saw a bigger severity effect,  $b = .143, t(1609) = 7.89, p < .001$ , than those higher in openness,  $b = .061, t(1609)$

= 3.21,  $p = .001$ . Men did not show this pattern, showing a similar effect of severity regardless of whether they were high or low in openness,  $t(1609) = .86, p = .39$ .<sup>3</sup>

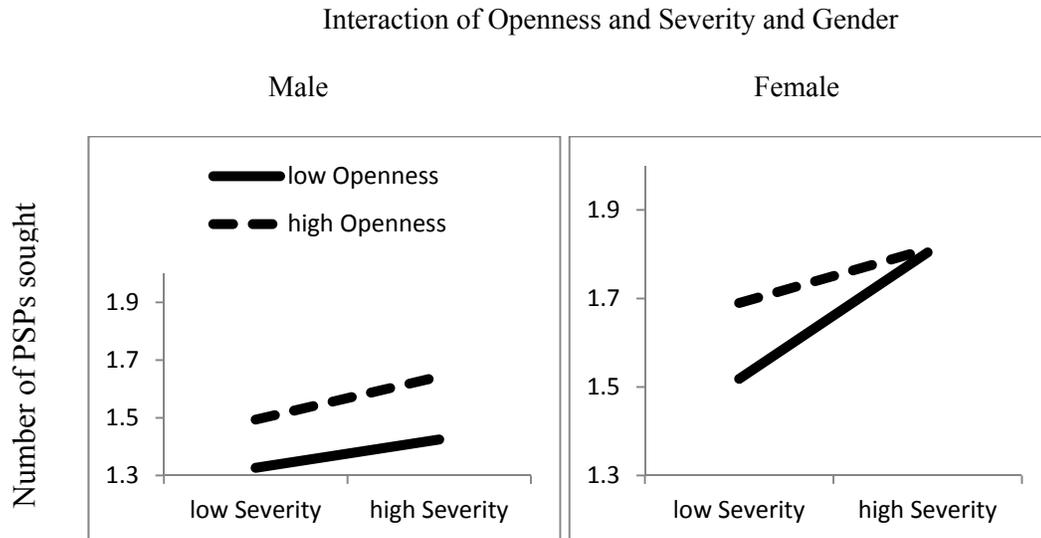


Figure 6. Three-way interaction between issue severity, openness and gender predicting number of PSPs sought per issue.

<sup>3</sup> The significant openness/intellect interaction effects held when all other Big Five traits were included in the model and was not explained by the attachment variables.

## DISCUSSION I

In studies using highly general measures of support seeking, seeking more support has been linked to positive outcomes (Collins & Feeney, 2000; Cox, 2012; Pinguart & Fröhlich, 2009). The first thing that we wanted to examine was whether seeking more support across one's social network was also linked to these same positive outcomes. Previous research had asked participants "how much" support they had sought for an issue but never "how many" people they sought support from. We felt that seeking support from multiple people was an important strategy for getting more support that bore examining. As the number of people sought is a more specific measure of amount than those used in previous research, using this metric allowed us to not only replicate but extend previous work linking gender and personality to support-seeking. Just as seeking support in general is linked to positive outcomes, we found evidence that seeking more PSPs also led to positive outcomes. Specifically, it led to next-day increases in psychological well-being. People felt more supported, more optimistic, more positive about the world and reported higher self-esteem if they had gone to more PSPs the day before.

Given that seeking more PSPs per issue appears to improve psychological well-being, what leads people to seek more PSPs? Because work on self-disclosure suggests that people seek more support when their needs are strongest (Rawlins, 1983), we looked first at the severity of issues and found that it was by far the strongest predictor of seeking support from more PSPs. Since seeking more support leads to improved well-being, this severity effect seems like a healthy reaction to increased stress.

Given previous literature on gender and personality, we had predicted that women would seek more PSPs than men and that people who were more agreeable, extraverted or less avoidantly attached would do the same. Drawing from Rawlin's theory on the decision to self-disclose (1983), we predicted that neuroticism and openness would also be associated with seeking more PSPs (neuroticism being associated with stronger needs, and openness being

associated with an increased willingness to take social risks). Our predictions stemming from previously literature were all born out, save one. We found the hypothesized effects of gender, agreeableness and avoidance. While the effect of extraversion on seeking more PSPs was positive but not significant, extraversion was a significant predictor when issue severity was high. Our predictions from self-disclosure theory were partially born out. Both openness and neuroticism marginally predicted seeking more PSPs.

Given the strength of the severity effect on support-seeking and the previous literature linking personality and severity (Strelau, 2001), the next thing we wanted to look at was the influence of gender and personality on the severity effect. We predicted that the same gender and personality characteristics that led to seeking more PSPs per issue would also lead to an increased severity effect, that as issues became more severe people with these characteristics would react more strongly, seeking even more PSPs than these characteristics or severity would predict alone. This set of predictions was partially born out. Women, people high in extraversion and people low in attachment avoidance showed a stronger severity effect. People high in extraversion are more outgoing and other-oriented, and for these reasons seeking support may be their “go to” strategy as stress increases. Likewise, attachment theory predicts that people who are less avoidant will seek more support and that this effect will increase as stress rises and the attachment system becomes more activated.

Contrary to what we had predicted, we did not see a stronger severity effect for neuroticism, agreeableness or openness. For each of these traits there was a general tendency to seek more PSPs per issue. However this tendency did not increase as issues became more severe. It is unclear why exactly this would be. One possibility is that people high in neuroticism, agreeableness and openness have different reasons for seeking multiple PSPs. An increased severity effect is what we would expect if and only if seeking multiple PSPs was being used primarily as a strategy for getting more support. As issues became more severe and the need for support rose, people would seek more PSPs in order to get more support. If the goal of seeking

more PSPs were different (e.g., build relationships) rather than to receive more support, then we might see the pattern exhibited for neuroticism, agreeableness and openness.

In addition to the main effects of gender and personality and their influence on the severity effect, there were a few three-way interactions between personality, severity and gender. We offer these with the caveat that we analyzed a number of three-way interactions that were not significant, and we hesitate to draw any strong conclusions from those that were significant. The interaction between attachment avoidance and severity appears to be driven more strongly by women, for whom the influence of avoidance on the severity effect was more pronounced. Interestingly for men, there appears to be a much weaker association between avoidance and severity. The interaction between openness and severity also appeared to be driven by women who showed a strong effect of openness on severity. In contrast, the severity effect for men did not appear to be influenced by openness at all. While we do not want to draw strong conclusions from these three-way interactions, it is interesting to note that in both cases the interaction was driven by a stronger trait by severity effect for women than for men. Women may be showing a greater range of responses to stress than men, and that some of this greater variability is predicted by personality traits.

### **Limitations**

The number of PSPs sought is only one aspect of the amount of support that people seek. It is unclear whether the effects that we uncovered will still be present when we include a broader measure of support-seeking amount in our analyses (e.g., “How much did you cope with this issue by seeking support from others?”). When someone seeks multiple PSPs for an issue, the benefit that they gain may be something unique about seeking support from multiple people, or it may merely reflect that they are seeking more support overall. With the current analyses, we are unable to compare and contrast participants’ general report of support seeking amount with their specific report of number of PSPs sought. This remains for future analyses, as the general variable was measured in this study.

In addition, our data only reflect the issues for which participants actually sought support. Aspects of gender and personality may predict not only the number of PSPs people seek but also whether they seek support at all. If participants had also been allowed to report on issues for which they had not sought support (allowing some issues to have zero supporters), this broader measure might produce different results.

### **Future Directions**

In future analyses we plan to also use our unanalyzed likert measures of the total amount of support that people sought for each issue overall. By including total seeking in models predicting psychological well-being, we should be able to tease apart the extent to which our effects are a function of seeking multiple sources rather than simply seeking more support in general. By predicting total seeking using gender and personality, we may be able to examine the extent to which these aspects of a person are really predicting the number of PSPs sought rather than simply total seeking.

A future study might also allow ask participants to report on issues for which they both did and did not seek support in order to more fully address the extent to which gender and personality predict both whether people seek support all and how much they seek when they do seek support.

### **Conclusion**

The number of PSPs a person seeks is positively related to increases in psychological well-being. Seeking support from more people appears to be a good strategy for coping with distress and one that is differentially predicted by gender and aspects of personality. We found that attachment avoidance and agreeableness were our biggest predictors of the number of PSPs people sought and that extraversion, neuroticism and openness were also predictive to a degree. In addition, our strongest predictor of the number of PSPs sought was issue severity. People generally sought out more PSPs for more severe issues. This severity effect was influenced by some of our person characteristics but not all that we had predicted. In particular, gender,

extraversion and attachment avoidance showed a strong influence on the severity effect whereby women (vs men), those high in extraversion (vs those low in extraversion) and those low in avoidance and openness (vs those high in avoidance and openness) showed a greater tendency to seek more PSPs when issues were more severe. There were significant three-way interactions that seemed to suggest that some of our personality by severity effects were being driven by women in particular.

## **RESULTS II**

### **Predictors of PSP Effectiveness and PSP Selection**

#### **Data Structure and Analysis Plan**

Each day, participants indicated whom they had successfully sought for support for each of two issues. We treated each issue as a separate occasion for support selection. Thus each participant provided between 4 and 28 support selection occasions. For each support selection occasion, participants indicated whether or not (0/1) they successfully sought each of their 15 PSPs for support. Thus, there are 15 support seeking decisions for each support selection occasion. For each affirmative support selection decision (1), participants were also asked to provide a rating of received support effectiveness. The dataset, therefore, has a multi-level structure with support decisions (or support effectiveness) as level one, PSPs and occasions (cross-classified) as level two and participant as level three. To examine the predictors of PSP selection (or support effectiveness), we ran multilevel models, using the statistical program R.

As described in Pinheiro and Bates (2000, p. 83), model comparisons were run to determine which grouping variables were significant in this dataset and should be included as random intercepts. These comparisons revealed that the grouping variables participant and PSP both added significantly to our model. However, occasion was not found to add significantly to a model that already contained intercepts for participants and PSPs and so was not included. As participants listed two issues per day, day was also tested as a potential grouping variable. It was not found to be significant. Thus, all analyses were conducted with random intercepts for participant and PSP. Degrees of freedom for all analyses were calculated using the “inner-outer” method described in Pinheiro and Bates (2000, p. 91).

Our first question was which of the PSP variables (if any) were most predictive of received support effectiveness. In order to assess this, we ran a multilevel model in which we regressed ratings of received support effectiveness on our three PSP variables: past support quality, closeness and frequency of interaction. The main effects of each of these variables were

examined to determine which of these variables exerts the strongest influence on received support effectiveness.

Our second question was which of the PSP variables were most predictive of actual support selection. We were also interested in whether the effect of these PSP variables on support selection differed as a function of participant characteristics. In order to assess this we ran a logistic multilevel model in which regressed individual support selection decisions (0/1) on our three PSP variables: past support quality, closeness and frequency of interaction. The main effects of each of these variables were examined to determine which of these variables exerts the strongest influence on support selection. We also looked at interactions between our PSP variables, personality variables and gender. These interactions are described in detail below.

### **PSP Characteristics**

**Predicting support effectiveness.** When the PSP variables were tested individually, two of the three PSP characteristics significantly predicted received support effectiveness. Past support quality was the strongest predictor,  $b = .19$ ,  $t(2330) = 8.53$ ,  $p < .001$ . Closeness was weaker,  $b = .06$ ,  $t(2330) = 3.03$ ,  $p = .003$ , and frequency was not predictive,  $b = -.013$ ,  $t(2330) = -.72$ ,  $p = .47$ .

When the PSP variables were tested in a model simultaneously, past support quality remained predictive,  $b = .21$ ,  $t(2328) = 8.06$ ,  $p < .001$ , but closeness was reduced to non-significance,  $b = -.02$ ,  $t(2328) = -.089$ ,  $p = .930$ . The power of closeness in predicting the effectiveness of received support appeared to be fully explained by past support quality. See Figure 7A.

**Predicting PSP selection.** When the three PSP variables were tested in a model individually, all three variables significantly predicted PSP selection. Past support quality was the weakest predictor,  $b = .26$ ,  $z(2328) = 6.30$ ,  $p < .001$ . Closeness was stronger,  $b = .43$ ,  $z(2328) = 11.93$ ,  $p < .001$ , and frequency of interaction was the strongest predictor of PSP selection,  $b = .74$ ,  $z(2328) = 29.65$ ,  $p < .001$ .

## Main Effects of PSP Characteristics on Effectiveness

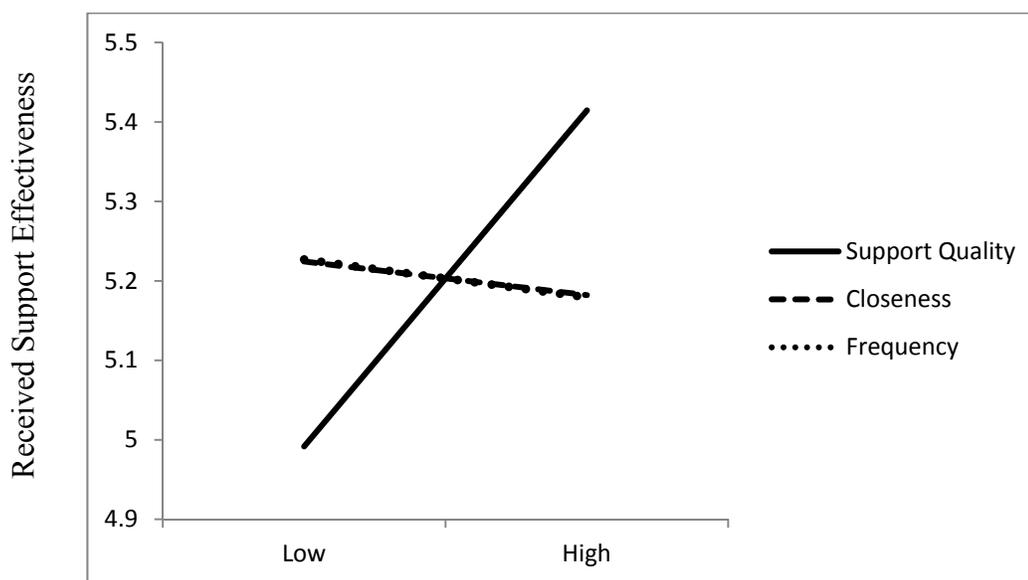


Figure 7A. Effectiveness of support provided by PSPs high or low in past support quality, closeness and frequency. Note: The lines for closeness and frequency are nearly identical and difficult to distinguish.

When the three PSP variables were tested in a model simultaneously, the pattern remained the same. Past support quality was our weakest predictor,  $b = .08$ ,  $z(2328) = 2.11$ ,  $p = .035$ . Closeness was stronger,  $b = .20$ ,  $z(2328) = 6.16$ ,  $p < .001$ , and frequency of interaction was our strongest predictor of PSP selection,  $b = .70$ ,  $z(2328) = 28.61$ ,  $p < .001$ . See Figure 7B. In all subsequent analyses, all three PSP variables will be included simultaneously. When interactions are presented, interactions with each of the three PSP variables are present in the model.

### Severity

Issue severity had a positive main effect on support seeking,  $b = .11$ ,  $z(166) = 8.67$ ,  $p < .001$ . Issue severity moderated the effect of a PSP's past support quality on support selection,  $z(2323) = 4.45$ ,  $p < .001$ . The effect of a PSP's past support quality on support selection was significant for issues that were more severe,  $b = .132$ ,  $z(2323) = 3.45$ ,  $p < .001$ , but not for issues

Main Effects of PSP Characteristics on Selection

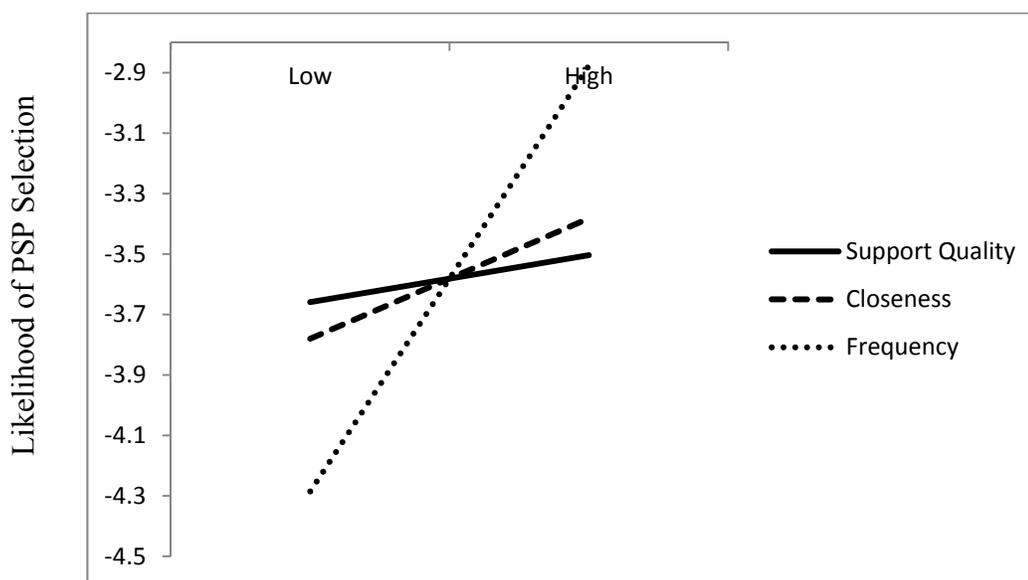


Figure 7B. Likelihood that a PSP high or low in past support quality, closeness and frequency will be selected. Because these graphs are based on a logistic regression, Y-axis values are log odds ratios.

that were less severe,  $b = .018$ ,  $z(2323) = .45$ ,  $p = .66$ . Issue severity did not moderate the effect of PSP closeness on support selection,  $z(2323) = .76$ ,  $p = .449$ . Issue severity moderated the effect of PSP frequency on support selection,  $z(2323) = -3.01$ ,  $p < .003$ . The effect of PSP frequency on support selection was strong for issues that were less severe,  $b = .744$ ,  $z(2323) = 26.89$ ,  $p < .001$ , but was a little less strong for issues that were more severe,  $b = .686$ ,  $z(2323) = 26.97$ ,  $p < .001$ . See Figure 8.

### Gender

Gender had a positive main effect on support seeking,  $b = .28$ ,  $z(166) = 2.69$ ,  $p = .007$ . Gender did not moderate the effect of a PSP's past support quality on support selection,  $z(2323) = -1.48$ ,  $p = .14$ . Gender did moderate the effect of PSP closeness on support selection,  $z(2323) = 3.00$ ,  $p = .003$ . Men and women were both more likely to seek out a closer PSP than one who was less close, however women,  $b = .290$ ,  $z(2323) = 6.47$ ,  $p < .001$ , did this to a greater degree

## Interaction of Severity and PSP Characteristics

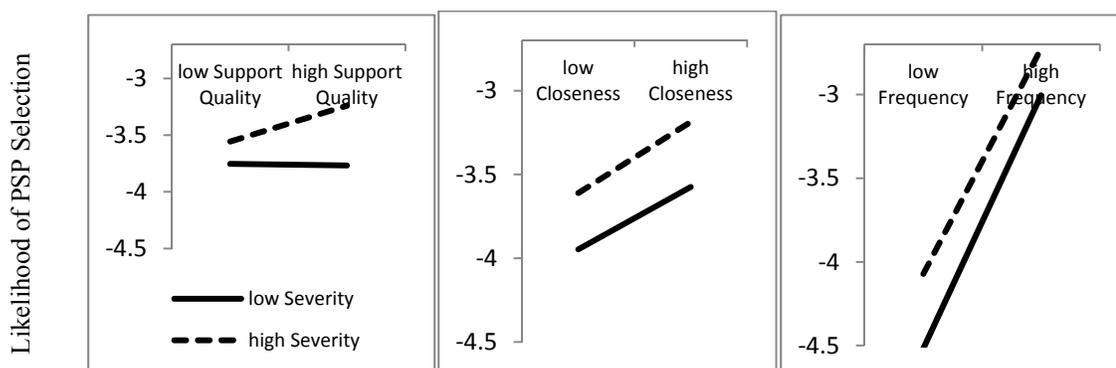


Figure 8. Likelihood that a PSP high or low in past support quality, closeness and frequency will be selected for issues of high and low severity. Because these graphs are based on a logistic regression, Y-axis values are log odds ratios.

than men,  $b = .095$ ,  $z(2323) = 2.00$ ,  $p = .045$ . Gender did not moderate the effect of PSP

frequency on support selection,  $z(2323) = 1.35$ ,  $p = .18$ . See Figure 9.

## Interaction of Gender and PSP Characteristics

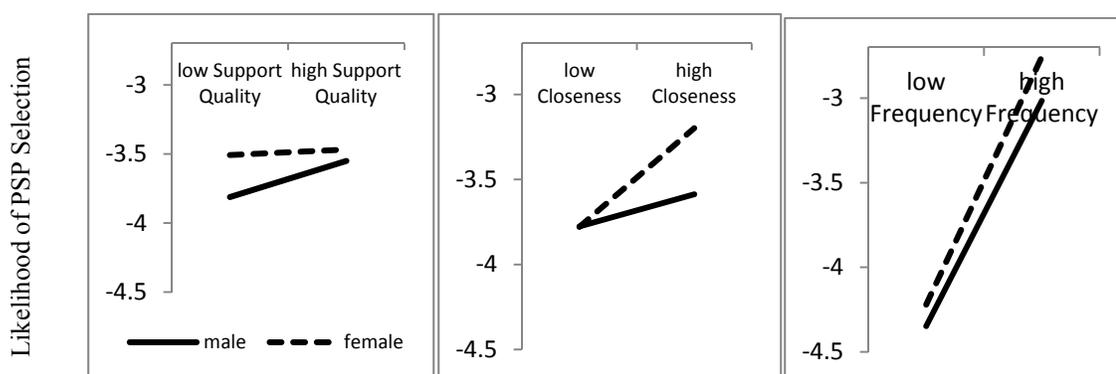


Figure 9. Likelihood that a PSP high or low in past support quality, closeness and frequency will be selected by men and women. Because these graphs are based on a logistic regression, Y-axis values are log odds ratios.

### Attachment Avoidance

Attachment avoidance had a negative main effect on support seeking,  $b = -.159$ ,  $z(166) = -3.06$ ,  $p = .002$ . Avoidance marginally moderated the effect of a PSP's past support quality on support selection,  $z(2323) = -1.71$ ,  $p = .002$ . People low in avoidance were significantly more likely to seek out a high quality supporter than a low quality supporter,  $b = .151$ ,  $z(2323) = 2.69$ ,  $p = .007$ . This was not the case for people high in avoidance, who were no more likely to seek a high or low quality supporter,  $b = .018$ ,  $z(2323) = .35$ ,  $p = .72$ . Avoidance did not moderate the effect of PSP closeness on support selection,  $z(2323)$ ,  $p = .17$ . Avoidance also did not moderate the effect of PSP frequency on support selection,  $z(2323)$ ,  $p = .59$ . See Figure 10.

### Attachment Anxiety

Attachment anxiety did not have a main effect on support seeking,  $b = .05$ ,  $z(166) = .89$ ,  $p = .37$ . Anxiety did not moderate the effect of a PSP's past support quality,  $z(2323) = -.46$ ,  $p = .64$ , PSP closeness,  $z(2323) = 1.41$ ,  $p = .16$ , or PSP frequency,  $z(2323) = .00$ ,  $p = .99$ , on support selection.

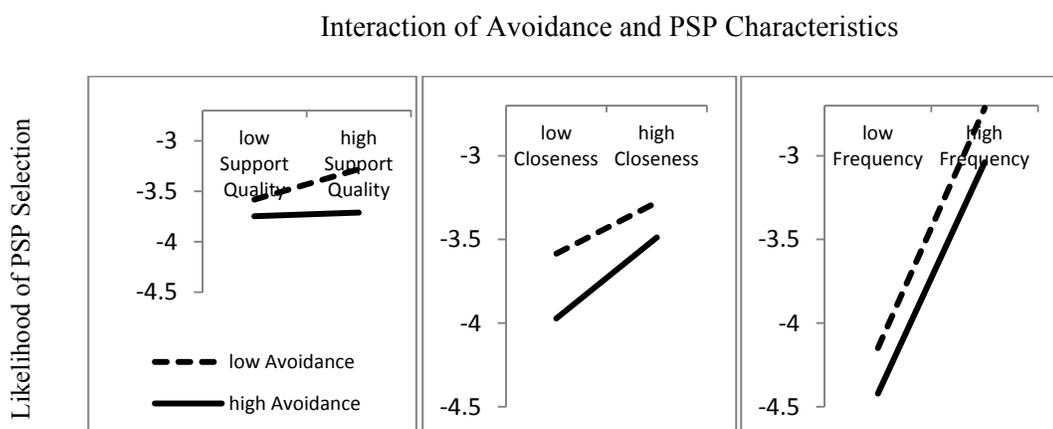


Figure 10. Likelihood that a PSP high or low in past support quality, closeness and frequency will be selected by participants high and low in attachment avoidance. Because these graphs are based on a logistic regression, Y-axis values are log odds ratios.

### **Extraversion**

Extraversion had a marginal positive main effect on support seeking,  $b = .09$ ,  $z(2323) = 1.77$ ,  $p = .08$ . Extraversion did not moderate the effect of a PSP's past support quality,  $z(2323) = .61$ ,  $p = .54$ , PSP closeness,  $z(2323) = .91$ ,  $p = .36$ , or PSP frequency,  $z(2323) = .50$ ,  $p = .62$ , on support selection.

### **Agreeableness**

Agreeableness had a positive main effect on support seeking,  $b = .127$ ,  $z(166) = 2.39$ ,  $p = .017$ . Agreeableness did not moderate the effect of a PSP's past support quality on support selection,  $z(2323) = -.41$ ,  $p = .68$ . Agreeableness moderated the effect of PSP closeness on support selection,  $z(2323) = 2.84$ ,  $p = .004$ . Both people high and low in agreeableness were more likely to seek out a closer supporter than one who was less close, but people higher in agreeableness did this to a greater degree,  $b = .296$ ,  $z(2323) = 6.34$ ,  $p < .001$ , than people lower in agreeableness did,  $b = .113$ ,  $z(2323) = 2.56$ ,  $p < .01$ . Agreeableness moderated the effect of PSP frequency on support selection,  $z(2323) = 2.60$ ,  $p = .009$ . Both people high and low in agreeableness were more likely to seek out a high frequency supporter than a low frequency supporter, but people higher in agreeableness did this to a greater degree,  $b = .768$ ,  $z(2323) = 22.10$ ,  $p < .001$  than people lower in agreeableness did,  $b = .646$ ,  $z(2323) = 19.62$ ,  $p < .001$ . See Figure 11.

### **Neuroticism**

Neuroticism had a significant positive main effect on support seeking,  $b = .10$ ,  $z(166) = 1.98$ ,  $p = .047$ . Neuroticism did not moderate the effect of a PSP's past support quality,  $z(2323) = .12$ ,  $p = .91$  PSP closeness,  $z(2323) = 1.47$ ,  $p = .14$ , or PSP frequency,  $z(2323) = -.20$ ,  $p = .84$ , on support selection.

### **Conscientiousness**

Conscientiousness did not have a main effect on support seeking,  $b = -.03$ ,  $z(167) = -.53$ ,  $p = .60$ . Conscientiousness did not moderate the effect of a PSP's past support quality,

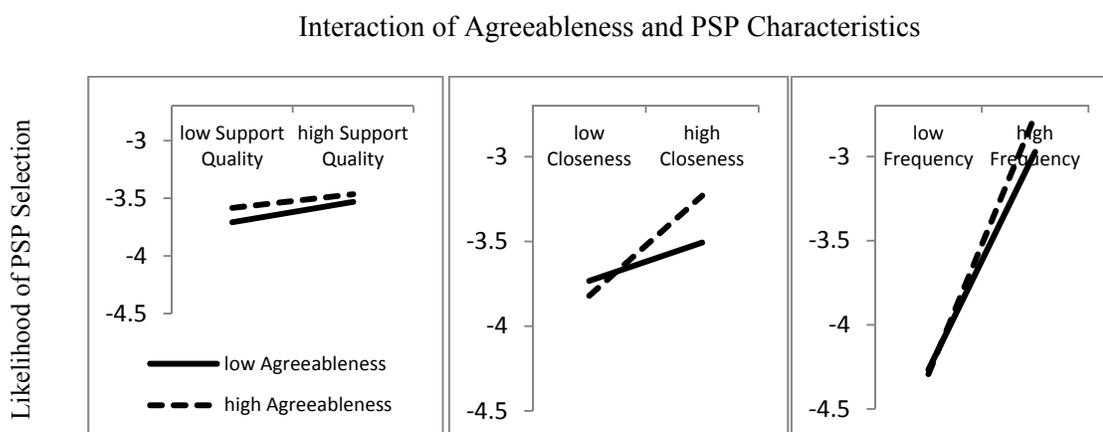


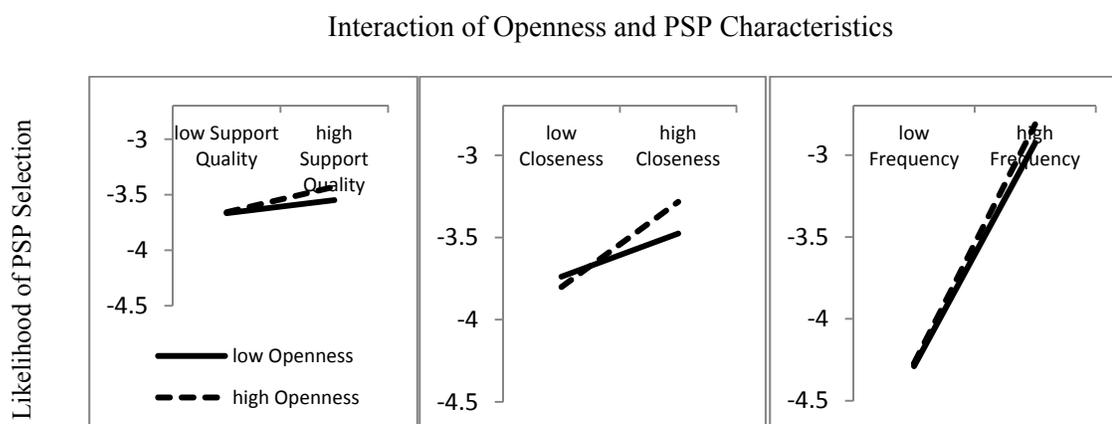
Figure 11. Likelihood that a PSP high or low in past support quality, closeness and frequency will be selected by participants high and low in agreeableness. Because these graphs are based on a logistic regression, Y-axis values are log odds ratios.

$z(2323) = .12, p = .90$ , PSP closeness,  $z(2323) = .23, p = .81$ , or PSP frequency,  $z(2323) = .60, p = .55$ , on support selection.

### Openness

Openness had a marginally positive main effect on support seeking,  $b = .09, z(167) = 1.80, p = .073$ . Openness did not moderate the effect of a PSP's past support quality on support selection,  $z(2323) = .79, p = .43$ . Openness did moderate the effect of PSP Closeness on support selection,  $z(2323) = 2.00, p = .046$ . Both people high and low in openness were more likely to seek out a closer supporter than a less close supporter, but people higher in openness did this to a

greater degree,  $b = .259$ ,  $z(2323) = 5.75$ ,  $p < .001$ , than people lower in openness did,  $b = .131$ ,  $z(2323) = 2.85$ ,  $p = .004$ . Openness marginally moderated the effect of PSP frequency on support selection,  $z(2323) = 1.84$ ,  $p = .066$ . Both people high and low in openness were more likely to seek out a high frequency supporter than a low frequency supporter, but people higher in openness did this to a greater degree,  $b = .750$ ,  $z(2323) = 21.76$ ,  $p < .001$ , than people lower in openness did,  $b = .661$ ,  $z(2323) = 19.29$ ,  $p < .001$ . See Figure 12.



*Figure 12.* Likelihood that a PSP high or low in past support quality, closeness and frequency will be selected by participants high and low in openness. Because these graphs are based on a logistic regression, Y-axis values are log odds ratios.

## DISCUSSION II

Although there are a variety of positive outcomes that come as the result of support-selection decisions, a clear and measurable way of assessing the quality of such a decision is by looking at the effectiveness of the support one receives. Our first question, therefore, was which characteristics of a PSP are the best predictors of support effectiveness? We looked at three potential characteristics that were likely to be important: past support quality, relational closeness and frequency of interaction. We found that past support quality was by far the strongest predictor of current support effectiveness. Past experience does indeed appear to be the best predictor of future performance. Relational closeness was a moderate predictor of support effectiveness on its own, however it was fully explained by past support quality. One appears to gain no additional support effectiveness by getting support from a closer PSP above and beyond the quality of the support the close PSP has given in the past. Frequency of interaction was not related to receiving effective support. Given the variety of reasons why we could decide (or be forced) to interact with someone frequently, we had no reason to think that it would be.

Our second question was which of these characteristics people most use in selecting PSPs. Surprisingly, the characteristics that were most predictive of actual selection were not the same as those that predicted effectiveness. Frequency was the strongest predictor of selection. People were most likely to seek support from those they interacted with the most. Relational closeness was our second strongest predictor and past support quality was a small but still significant third. It appears that although past support quality is the most important predictor of support effectiveness, it is the criterion that people utilize the least when it comes to actually choosing supporters. On average, people seem to prioritize frequency of interaction and relational closeness when deciding whom to seek support. The way that people actually select PSPs and the way that they should if they want to get the most effective support possible are not the same.

Past support quality was the one PSP characteristic that predicted the effectiveness of received support, and people do appear to use past support quality when selecting PSPs, though never as much as closeness or frequency of interaction. Our question then is what factors, if any, are associated with prioritizing past support quality more and thus making the receipt of effective support more likely? The first factor that led people to do this was issue severity. When issues were more severe, individuals not only sought more support, they placed more emphasis on past support quality as well. Interestingly, when needs were less severe, people were not at all concerned with the past support quality of the PSPs they sought. There are other reasons than effectiveness to select supporters (building relationships, accessibility, etc.), and these reasons may be more prominent for more mundane issues.

Attachment avoidance also influenced the extent to which people prioritized past support quality in selecting a PSP. People who were low in avoidance made more use of past support quality and thus appeared to actively seek out more effective supporters. In fact, attachment avoidance was the only personality predictor that we tested that made a difference in this regard. Other personality traits influenced the way that people used the other criteria, but only avoidance actually predicted seeking better supporters. This finding is very much in keeping with the literature on attachment, which has shown that those low in attachment avoidance are more open to receiving help from others (Mikulincer & Florian, 1997) and gain more benefit from doing so. It makes sense then that receiving better quality help (as one would expect from a better quality supporter) would be something that those low versus high in avoidance would find more rewarding.

People also differed in their use of relational closeness in selecting a PSP. Everyone preferred to seek out someone who was closer over someone who was less close. However, this was especially true for women and people who were highly agreeable or open. Given that PSP closeness and a PSP's past support quality were positively associated, prioritizing closeness could be an indirect strategy for getting better support. However in our analysis of closeness we

controlled for past support quality, indicating that people prioritized closeness in particular and not past support quality by extension. What would lead them to do this? Support seeking has other benefits besides receiving effective support. People have a desire to self-disclose, and doing so can lead to increased feelings of intimacy and closeness (Fehr, 2000). The desire to self-disclose and the need to belong have been shown to be higher in women than men and higher in people who are more agreeable (Seidman, 2013). This may, in part, explain why women and agreeable people prioritize closeness. Openness presents a more interesting case. Openness has been associated with taking greater risk-taking (McGhee et al., 2012) which in turn could be associated with a greater tendency to self-disclose. There doesn't appear to be a clear reason, however, why people higher in openness would concentrate their greater seeking on those closest to them.

There was also some variation in the extent to which people prioritized interaction frequency in selecting PSPs, with people higher in agreeableness and openness placing a greater emphasis on frequency than those low in these traits. The reason for this is unclear. When a person prioritizes past support quality, they are likely seeking greater support effectiveness. When a person prioritizes relational closeness, they may be seeking to build or strengthen their most intimate relationships. The only reason that we can see for prioritizing frequency (which again was our strongest predictor of selection) is a desire to get support more quickly or easily. We have no reason, however, to believe that people who are highly agreeable or open would have a stronger desire to get support quickly or with less effort. What makes frequency especially important to those who are more agreeable or open is a mystery to us.

### **Limitations**

We began by claiming that past support quality was the only significant predictor of current support effectiveness. One limitation of this study was that we only have ratings of effectiveness for PSPs that were actually sought for support. Our model suggests that past support quality predicts effectiveness, but we have no way of knowing how effective the support

would have been had a participant chosen a different PSP. For this reason, it is difficult for us to make the claim that any choice was “good.” We don’t know what a participant’s available options were, and we can’t know how effective alternative supporters would have been.

This study was also limited to an extent by its undergraduate population. Both the daily issues that undergraduates face and the social networks they call upon are likely different from those of a broader community sample. As people age they may also make support decisions differently. In particular, we think it is possible that people learn from their experiences and utilize their social networks more effectively as they grow older, perhaps by placing more emphasis on the use of past support quality in choosing supporters. If age effects like this exist, we believe that they are likely small but worth investigating.

### **Future Directions**

In a future study, we would like to collect reliable information about the supporters that were and were not chosen for support. While we attempted to do this in the current study, a more careful design would allow us to make better use of participant’s assessments of “what might have been”, by asking our participants questions about why they did and didn’t choose the various supporters in their network. Asking questions like “If you had sought this person support, what do you think the quality of their support would have been?” or “If you had sought this person for support, how quickly could you have reached them?” would allow us to look at the quality of the alternative options that were available when support selections were made. Asking questions about the accessibility of potential alternative supporters might also allow us to answer our lingering questions about why participants prioritized frequency to the extent that they did.

Lastly, a broader community sample would allow us both to draw more generalizable conclusions about the way that people make support selections and also, potentially, to look at differences in support-selection decisions between different age and cultural groups.

## **Conclusion**

We looked at the effects of three PSP characteristics on support selection: past support quality, relational closeness and frequency of interaction. When predicting the effectiveness of support, past support quality was by far our strongest predictor, and it was the only PSP characteristic that uniquely predicted effectiveness controlling for the others. However, the strongest predictor of PSP selection was frequency of interaction, followed by closeness, and then past support quality. In fact, past support quality was only predictive of support-selection when issues were severe. For more mundane issues, people didn't appear to consider past support quality at all. The only personality variable that influenced the extent to which people used past support quality to select PSPs was attachment avoidance. People who were less avoidant were more likely to prioritize past support quality. Women were more likely to prioritize relational closeness than men, and people high versus low in agreeableness and openness were more likely to prioritize relational closeness and frequency.

## GENERAL DISCUSSION

The present paper examined two different questions regarding the way people utilize their social support networks: how many PSPs people seek and how people choose which PSPs to select. In so doing we found a couple of effective strategies for coping with stress. The first strategy was related to the number of supporters a person seeks. When a person is in need of support, it seems clear that seeking that support from multiple people is an effective strategy for improving one's well-being. The second strategy regarded how one chooses which people to seek out. One will likely be tempted to go seek out the people closest to them or those they see the most often. However, if one is truly interested in receiving highly effective support, one would do well to take a moment to consider which supporters have provided the best quality support in the past.

So given that we have identified a couple of strategies for seeking support effectively, what kinds of people actually employ these strategies? First, what kinds of people are likely to seek more PSPs for their issues? Women, people low in attachment avoidance and people high in extraversion, agreeableness, neuroticism and openness were all more likely to seek support from multiple sources. Second, which people placed the most emphasis on past support quality in choosing a supporter? When issues are severe, the answer is: just about everyone. It appears that most people consider who will give them the most effective support when their needs are the most pressing. At the level of individual differences, attachment avoidance was the only personality trait that predicted seeking more effective supporters, and people low in avoidance (who also sought multiple supporters) were thus the only group that was found to employ both strategies for seeking support effectively.

Much work remains to be done. Many questions remain about both of our research questions. We have shown that people vary in the number of people they seek for support and that the number of supporters one seeks is important; however we don't know whether there is

something special about seeking more PSPs due to the interactions with more unique individuals or whether it is simply an effective strategy for getting a larger amount support overall. We have shown that seeking support from more effective supporters is a good support-seeking strategy and one that some people employ. However, there appear to be people who are systematically seeking PSPs for other reasons, and it is unclear why they do this and what the outcomes of doing so are. The current work has, we hope, laid the groundwork for future research that will address these and other related questions.

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**Appendix A**  
**Questions asked about each PSP at intake:**

#	Question	Anchor 1	Anchor 2	Anchor
1	How long have you known this person?	special	time	years-months
2	In your opinion, how much does this person care about you?	Not at all	Moderately	Tremendously
3	In your opinion, how close are you to this person	Not at all	Moderately	Tremendously
4	How often do you interact with this person?	Once a month or less	Once a week	At least once a day
5	How committed are you to maintaining a long-lasting relationship with this person?	Not at all committed	Moderately committed	Tremendously committed
6	How satisfied are you with your relationship with this person?	Not at all satisfied	Somewhat satisfied	Completely satisfied
7	It helps to turn to this person in times of need.	Strongly disagree	Neutral	Strongly agree
8	I don't feel comfortable depending on this person.	Strongly disagree	Neutral	Strongly agree
9	I worry that this person won't care about me as much as I care about him or her.	Strongly disagree	Neutral	Strongly agree
10	I often worry that this person doesn't really care for me.	Strongly disagree	Neutral	Strongly agree
11	How much do you trust this person to be there to support you?	Not at all	Somewhat	Completely
12	How often have you gone to this person in the past for support?	Almost never	Sometimes	Frequently
13	In your opinion, what has been the quality of their support?	Worst	Medium	Best
14	How often has this person come to you in the past for support?	Almost never	Sometimes	Frequently
15	To what extent do you think this person has an obligation to support you?	Not at all obligated	Somewhat obligated	Completely obligated

**Appendix B**  
**Follow up ratings of sought PSPs**

For each PSP that the participant indicated that they had sought, they were asked to respond to items that assessed their thoughts prior to and after seeking support from that PSP.

#	Question	Anchor 1	Anchor 2	Anchor
1	How much support did you seek from this person?	a little	some	a lot
2	When you revealed your need to this person, how uncomfortable did you feel about revealing it?	not at all uncomfortable	somewhat uncomfortable	extremely uncomfortable
3	How much do you think this person genuinely cared about your need?	didn't care at all	moderately	cared a great deal
4	Before you asked this person for support, how likely did you think it was that they would agree (to give you support)?	not at all likely	somewhat likely	completely likely
5	Before you asked this person for support, how effective did you think the support would be?	not at all effective	moderately effective	extremely effective
6	In your opinion, how effective was the support you got from this person?	not at all effective	moderately effective	extremely effective
7	Before asking this person for support, how much of a burden did you think it would be on them (to support you)?	not a burden	somewhat of a burden	a major burden
8	How easy was it to access this person?	not at all easy	moderately easy	extremely easy
9	How much does this person have special knowledge about this issue or expertise in this domain?	no special knowledge	some knowledge	a great deal of knowledge

### Appendix C Follow up Ratings of a Sample Unsought PSPs

For some PSPs that the participant indicated they had *not* sought, participants were asked what they thought would have happened if they had sought that person for support. These items strongly paralleled items used for sought PSPs.

Because of time constraints, only a sample of unsought PSPs was chosen by our system for each issue. Unsought PSPs were selected such that the number of sought and unsought PSPs for each issue totaled 8. Thus, if a participant indicated that they had sought 3 PSPs, 5 unsought PSPs would be selected by the system. Unsought PSPs were selected in order of closeness with the idea that having more data for those members of a participant's social network that mattered most to the participant most would be beneficial.

#	Question	Anchor 1	Anchor 2	Anchor
1	Imagine you had revealed your need to this person. How uncomfortable would you have felt to reveal it?	not at all uncomfortable	somewhat uncomfortable	extremely uncomfortable
2	Imagine you had revealed your need to this person. In your opinion, how much would this person have genuinely cared about your need?	wouldn't care at all	moderately	would care a great deal
3	Imagine you had asked this person for support regarding this issue. In your opinion, how likely would the person have been to offer you support, if you asked for it?	not at all likely	somewhat likely	completely likely
4	Imagine this person had tried to provide help or support to you regarding this issue. In your opinion, how effective would his/her support have been?	not at all effective	moderately effective	extremely effective
5	Imagine this person had tried to provide help or support to you regarding this issue. In your opinion, how much of a burden it would it have been for the person?	not a burden	somewhat of a burden	a major burden
6	How easy would it have been for you to access this person for support?	not at all easy	moderately easy	extremely easy
7	How much does this person have special knowledge about this issue or expertise in this domain?	no special knowledge	some knowledge	a great deal of knowledge

**CURRICULUM VITAE**  
**Benjamin F. Armstrong III**

**EDUCATION****GRADUATE: WAKE FOREST UNIVERSITY***Graduation Date - May 2013*

Masters' Candidate of General Psychology

**UNIVERSITY OF PENNSYLVANIA: NON-TRADITIONAL GRADUATE STUDIES***Fall 2010 - Spring 2011***UNDERGRADUATE: TEMPLE UNIVERSITY***Graduation Date - Spring 2008 Sigma Cum Laude*

B.A. in Religious Studies

**MONTGOMERY COUNTY COMMUNITY COLLEGE***Graduation Date - Spring 2006*

A.A. in Humanities

**RESEARCH**Kammrath Research Lab – Winston-Salem, NC

Wake Forest University

*Graduate Student and Lab Coordinator (2011-2013)*Trueswell-Gleitman Research Lab – Philadelphia, PA

University of Pennsylvania

*Research Assistant (2010-2011)***VOLUNTEER**Wake Forest Baptist Medical Center

Oncology Division

*Support Provider (Summer 2012)***HONORS/AWARDS MCGILL UNIVERSITY**

Tomlinson Doctoral Fellowship (2013-2016)

**TEMPLE UNIVERSITY**

Distinction in Major

Phi Beta Kappa

James H. Dunham Award for Academic Excellence in the Humanities

Temple University President's Scholar Certificate of Merit

**MONTGOMERY COUNTY COMMUNITY COLLEGE**

Phi Theta Kappa

Blumenthal Award for Academic Excellence

**PUBLICATIONS AND PRESENTATIONS**

Armstrong III, B. F., & Kammrath, L.K. (2013). *What predicts support selection: Examining personality and gender*. Manuscript in preparation, Department of Psychology, Wake Forest University, Winston-Salem, USA.

Cartmill, E. A., Armstrong III, B. F., Gleitman, L. R., Goldin-Meadow, S., Nicol-Medina, S., & Trueswell, J. C. (under review). *Quality of early parent input predicts child vocabulary 3 years later.*

Armstrong III, B. F., & Kammrath, L. K. (2013, January). *Why people seek support from bad supporters: Subjective well-being affects supporter selection decisions.* Poster presented at the Society for Personality and Social Psychology, New Orleans, LA.

Armstrong III, B. F., & Kammrath, L. K. (2012, July). *Happy people seek support differently: Well-being, support-seeking and perceived support quality.* Poster presented at the International Association of Relationship Research, Chicago, IL.