Who Matters Most? The Contribution of Faculty, Student-Peers, and Outside Support in Predicting Graduate Student Satisfaction

Kelley A. Tompkins, Kierra Brecht, Brock Tucker, and Lucia L. Neander University of Alaska Anchorage Joshua K. Swift Idaho State University

Social support is one variable that has been linked to a number of positive academic and personal outcomes for graduate students. However, little is known about which sources of social support (faculty mentors, student-peers, family/friends outside of the program) best predict graduate student satisfaction with their training program. The following study examined the relationship between social support from 3 sources (peers, family/friends, and faculty) and 2 indices of satisfaction (program and general life) for graduate students in American Psychological Association accredited professional psychology programs. For this study, 228 doctoral students completed self-report measures pertaining to sources of social support, graduate program satisfaction, and general life satisfaction. The participating graduate students reported receiving significantly more academic socioemotional support from friends/family and studentpeers than from their faculty mentors. Regression analyses revealed that taken together, these 3 sources of social support explained 28% of the variance in program satisfaction and 30% of variance in overall life satisfaction. Faculty and student-peer support uniquely explained variance in ratings of program satisfaction, whereas all 3 forms of social support uniquely explained variance in overall life satisfaction. However, for both types of satisfaction, faculty support explained a greater amount of unique variance than the other 2 sources. The findings from this study have implications for ways to best support professional psychology doctoral students during their graduate education.

Keywords: faculty support, peer support, trainee satisfaction, graduate training, social support

Training to become a clinical or counseling psychologist is a challenging and arduous journey. Once prospective students make it past the hurdle of getting into an American Psychological Association (APA) approved professional psychology program, the tough work of trying to succeed in graduate school begins. Graduate students in professional psychology programs are often tasked with juggling client loads, research activities, coursework demands, assistantships, and other new professional duties. Balancing all of these demands frequently results in significant levels of stress. Documenting this, one older study found that three fourths of clinical psychology trainees indicated that they were either moderately or very stressed as a result of their training

(Cushway, 1992). More recently, a study conducted by the APA of Graduate Students and APA's Advisory Committee on Colleague Assistance found similar results, with 70% of participating graduate students endorsing feeling negatively impacted by stressful events during their graduate education (El-Ghoroury, Galper, Sawaqdeh, & Bufka, 2012).

The experience of significant levels of stress during graduate school can have a negative impact in many areas of a graduate student's life, including sleep patterns (Lund, Reider, Whiting, & Prichard, 2010), satisfaction with life (Alleyne, Alleyne, & Greenidge, 2010), mental health (Bayram & Bilgel, 2008; DeBerard & Masters, 2014), and physical well-being (Lacey et al.,

KELLEY A. TOMPKINS, MS is a graduate student in the clinical-community psychology doctoral program in the Department of Psychology at the University of Alaska Anchorage. Her research interests are in the areas of patient preferences for psychotherapy, other factors that impact the process and outcomes of therapy, and general relationships outside of psychotherapy.

KIERRA BRECHT, MS is a graduate student in the clinical-community psychology doctoral program in the Department of Psychology at the University of Alaska Anchorage. Her research interest is in studying cultural differences in the development of the therapeutic alliance.

BROCK TUCKER, BS is a graduate student in the clinical-community psychology doctoral program in the Department of Psychology at the University of Alaska Anchorage.

LUCIA L. NEANDER, BA is a graduate student in the clinical-community psychology doctoral program in the Department of Psychol-

ogy at the University of Alaska Anchorage. Her area of research interest is in studying the emotional and social processes that contribute to psychological wellbeing throughout the lifespan.

JOSHUA K. SWIFT, PhD is an assistant professor in the Department of Psychology at Idaho State University. His research interests center on studying psychotherapy processes and outcomes, particularly in studying client variables and premature termination in psychotherapy.

JOSHUA K. SWIFT, PhD completed portions of this study while he was a faculty member at the University of Alaska Anchorage, and then as a faculty member at Idaho State University.

CORRESPONDENCE CONCERNING THIS ARTICLE should be addressed to Joshua K. Swift, Department of Psychology, Idaho State University, 921 South 8th Avenue, Stop 8112, Pocatello, ID 83209. E-mail: joshua .keith.swift@gmail.com

2000). High levels of stress in graduate school have also been found to be associated with poorer academic performance and an increased likelihood of failing to complete the graduate program (Lovitts, 2001). In addition, in professional psychology programs, graduate student stress can have an impact on trainees' clinical work because of burnout and fatigue (Barnett, Baker, Elman, & Schoener, 2007). Given the negative impacts associated with high levels of stress in graduate school and the percentage of students who experience this type of stress in professional psychology programs, further research exploring methods for coping with stress in graduate school and predicting life and school satisfaction for graduate students is needed.

When facing stress, social support is often cited as an important source of strength and coping for graduate students (Ali & Kohun, 2006; Clark, Murdock, & Koetting, 2009; Lovitts, 2001; Powers & Swick, 2012). Social support has been defined as the "perception or experience that one is cared for, esteemed, and part of a mutually supportive social network" (Taylor, 2011, p. 189). A number of studies have documented benefits associated with experiencing positive social support while in graduate school. For example, Clark and colleagues (2009) found that students who perceived more support reported lower levels of global stress. Results from other studies have found that perceiving an adequate level of social support has been linked to an increased likelihood of completing a graduate program (Ali & Kohun, 2006; Lovitts, 2001; Lovitts & Nelson, 2000). Additionally, graduate students' ratings of program supportiveness have been found to predict their ratings of program satisfaction, receptiveness to feedback, and levels of confidence (Veilleux, January, VanderVeen, Reddy, & Klonoff, 2012). Based on these positive findings, it is perhaps not surprising that many resources that offer advice to students on how to succeed in graduate school recommend finding support from others, both in and out of the training program (Kashdan, 2014; Powers & Swick, 2012; Tartakovsky, 2013).

The existing literature suggests that having a high level of social support can be a valuable coping tool in managing the stress that is often experienced in graduate school. However, the existing research is not clear on what sources of social support might be of most help for professional psychology graduate students. One might ask, should graduate students spend their time seeking social support from faculty mentors, peers, those outside of the program, or all of the above, to help cope with the stressors of graduate school? In one study that has addressed this question, Clark et al. (2009) had 284 counseling psychology doctoral students from training programs across the country complete measures of burnout, career choice satisfaction, and social support from family/ friends, advisors, and other students. They found that of the three sources of support, advisor support was the only significant predictor of burnout, and none of the three support sources significantly predicted career choice satisfaction. Their findings suggest that support from faculty advisors might be most important for graduate students; however, this is true only for ratings of burnout, and the study only included counseling psychology doctoral students. Additional research is needed examining the relationship between different sources of social support and other outcome variables with a broader sample of professional psychology graduate students.

Current Study

The purpose of the current study was to further examine the relationship between different sources of social support and two types of satisfaction (program satisfaction and general life satisfaction) in a sample of professional psychology graduate students. Specifically, the first goal of the study was to compare the levels of support that graduate students from APA-approved professional psychology graduate programs perceived receiving from program faculty members, student-peers, and family/friends outside of the program. Based on anecdotal discussions with students only, we hypothesized that students would rate the support that they received from family/friends and student-peers higher than the support that they received from program faculty members. The second goal of the study was to examine whether perceived levels of these three types of support could predict satisfaction with the graduate program as well as general life satisfaction for the graduate student participants. Clark et al. (2009) found that none of these three support sources significantly predicted career choice satisfaction. However, career choice satisfaction differs from life and program satisfaction, and we hypothesized that all three sources of support would significantly predict the two types of satisfaction that were measured in this study; but we were not sure which, if any, of the three would explain a unique amount of variance in ratings of satisfaction.

Method

Participants

Participants were 228 graduate students enrolled in clinical, counseling, or combined professional psychology doctoral programs accredited by the APA. They were primarily female (83.3%) and identified their race/ethnicity as Caucasian (81.5%). Other self-identified race/ethnicities included international student (3.5%), Asian American (3.1%), Latino(a) American (3.1%), Multiracial American (3.1%), other (3.1%) and African American (2.6%). The average age of participants was 27.16 years old (SD =4.65), ranging from 21 to 57 years. Approximately half (55.3%) of the participants were seeking their PhD, 39.4% were seeking a PsyD, and 5.3% were working toward another terminal graduate degree (e.g., EdD). The majority of participants were in a clinical program (70.0%), 27.3% were in a counseling program, and 2.6% were in a combined program. The average number of years students were in their program was 2.72 years (SD = 1.58), ranging from 1 (29.4% of participants) to 7 years (1.8% of participants). The names of the programs were not collected in order to maintain participant anonymity.

Procedures

Over the course of one week, training directors of all APA-accredited clinical, counseling, or combined professional psychology doctoral programs were asked via e-mail to distribute a recruitment script to their graduate students. The recruitment script introduced the study as a "survey examining the relationship between different types of social support and satisfaction with training." In return for their participation, students were offered a chance to win a \$50 gift card. Based on an a priori power

calculation and a conservative estimate that there could be 25% survey responders having incomplete data, recruitment was closed after 250 students consented to participate in the study. Recruitment took approximately four weeks to reach the specified sample size. Eight participants who did not complete any of the survey questions and 14 participants who failed to complete one or more of the study measures were excluded from the study. All analyses were based on data from the remaining 228 participants.

Upon clicking on the survey link in the recruitment e-mail, participants were directed to an online informed consent page that contained further details of the study. After providing informed consent, participants were asked to complete demographic questions, followed by a measure assessing life satisfaction, a measure of training program satisfaction, and questionnaires assessing social and academic support from program faculty, student-peers, and outside family and/or friends. The social/academic support questionnaires were presented in a random order across participants. The survey took approximately 5 to 10 min to complete. All procedures were approved by the investigators' institutional review board and participants were treated in compliance with the ethical standards of the APA (2002).

Measures

Socioemotional academic support. Academic social support from program faculty, student-peers in the program, and family and/or friends outside of the program was assessed using the socioemotional subscale of Tenenbaum, Crosby, and Gliner's (2001) Mentoring Relationships in Graduate School scale. This full self-report scale was originally developed by Tenenbaum and colleagues as a measure assessing graduate student satisfaction with the support that they receive from their faculty advisors in the areas of socioemotional, instrumental, and networking help. In this study, we were interested in assessing types of support that graduate students could receive from faculty, student-peers, and family/friends. Given that student-peers and family/friends likely provide participants with minimal to no help networking (e.g., "helped you meet other people in your field") and directly assisting with graduate schoolwork (e.g., "given you authorship on publications," "helped you improve your writing skills," "explored career options with you"), we only used the 10 items from the Socioemotional subscale. The Socioemotional subscale includes items such "conveyed feelings of respect for you as an individual," "encouraged you to talk openly about anxiety and fears that detract from your work," and "gone out of his/her way to promote your academic interests." Each item is rated on a 5-point scale, ranging from 1 (not at all) to 5 (to a very large extent). Total scores range from 10 to 50, with higher scores indicating more perceived socioemotional support. Tenenbaum et al. found that the subscale has an internal consistency of $\alpha = .93$, and scores are positively correlated with advisor satisfaction (r = .68) and a measure of the advisor-advisee working relationship (r = .71). Participants in the study were asked to complete the socioemotional subscale three times—once assessing the support they receive from their program faculty, once for the support they receive from their student-peers within their program, and once for the support they receive from family members and/or friends outside the program. The internal consistency when rating faculty was $\alpha = .93$, student-peers was $\alpha = .94$, and family/friends outside the program was $\alpha = .92$.

Satisfaction with life. In order to assess graduate student life satisfaction we used the Satisfaction with Life Scale (SWLS), which was developed by Diener, Emmons, Larsen, and Griffin (1985). The SWLS is a five-item self-report measure. Sample items include "I am satisfied with my life" and "In most ways my life is close to my ideal." Each item is rated on a 7-point scale, ranging from 1 (strongly disagree) to 7 (strongly agree). Total scores range from 5 to 35, with higher scores representing greater life satisfaction. According to Diener et al., scores in the 5 to 9 range represent extreme dissatisfaction; 10 to 14, dissatisfaction; 15 to 19, below average satisfaction; 20 to 24, average satisfaction; 25 to 29, above average satisfaction; and 30 to 35, high satisfaction. In the original article assessing the psychometric properties of the measure, Diener et al. (1985) reported an internal consistency of $\alpha = .87$, a test-retest reliability of r = .82, and significant correlations with specific domain measures of satisfaction, selfesteem, and positive affect. In the present sample, the internal consistency of the scale was $\alpha = .89$.

Satisfaction with graduate program. To assess participants' satisfaction with their graduate program, we used five items assessing satisfaction in the areas of academic training, clinical training, research training, professional development, and overall satisfaction. These five topic areas were based items used in a study by Veilleux and colleagues (2012) seeking to validate the Graduate Program Climate Scale. Each item/topic area was rated on a 7-point scale ranging from 1 (completely dissatisfied) to 7 (completely satisfied). Total program satisfaction scores were calculated by summing across items, ranging from 5 to 35, with higher scores representing greater satisfaction. In their study, Veilleux et al. found that similar items were significantly correlated with the Graduate Program Climate Scale. In our study, an internal consistency of $\alpha=.84$ was found for these five items.

Results

Means, standard deviations, and correlations for all measures can be found in Table 1. Overall, mean life satisfaction of participants was 25.61 (SD=5.81), which corresponds to above average life satisfaction on the SWLS, and mean program satisfaction was similarly high, with a mean of 26.52 (SD=4.55) on a 5 to 35 scale. Participants' program satisfaction scores were significantly correlated with their ratings of life satisfaction, r=.42, p<.01. Amount of social support ranged from 34.51 (SD=8.51) for level of faculty support to 40.06 (SD=8.52) for peer support. The scores on the social support scale range from 10 to 50, with higher scores illustrating greater levels of social support; therefore, on average, students reported that they were receiving a higher level of support from all three social groups.

We were first interested in comparing levels of academic socioemotional support that our participants perceived from each of the three groups—program faculty, student-peers in the program, and family/friends outside the program. A repeated measures ANOVA found a significant difference between the level of support that was perceived from each of these groups, F(2, 454) = 46.75, p < .001, $\eta^2 = .17$. Post hoc pairwise comparisons with Bonferroni corrections, found that perceived academic socioemotional from faculty

¹ See http://internal.psychology.illinois.edu/~ediener/SWLS.html for additional details on the norms for the SWLS.

	· · · · · · · · · · · · · · · · · · ·		1.1		
	Life satisfaction	Program satisfaction	Faculty support	Student-peer support	Family/friend support
Mean	25.61	26.52	34.51	40.06	39.31
SD	5.81	4.55	8.51	8.52	8.15
Program satisfaction	.42**				
Faculty support	.45**	.50**			
Student-peer support	.40**	.38**	.44**		
Family/friend support	.39**	.21*	.31**	.37**	

Table 1
Means, Standard Deviations, and Correlations for Social Support and Satisfaction Measures

mentors was rated significantly lower than perceived support from family/friends outside the program ($M_{\rm diff}=4.80,\,95\%$ CI [3.24, 6.36], p<.001) and perceived support from student-peers in the program ($M_{\rm diff}=5.55,\,95\%$ CI [4.10, 6.99], p<.001). Ratings of perceived support from family/friends and student-peers were not significantly different from each other ($M_{\rm diff}=0.75,\,95\%$ CI [-0.76, 2.25], p>.05). These results indicate that participants perceived the most socioemotional support with their performance in graduate school as coming from student-peers inside their program and family/friends outside of their degree program.

One might hypothesize that first-year students would perceive more support from their family/friends outside of their graduate programs because they have not had adequate time to develop relationships with faculty members or student-peers. In contrast, more advanced students would experience higher levels of support from within their programs because they have had more opportunities to build trusting relationships with these individuals. In order to test this hypothesis, correlations were calculated between year in program and rating of each type of academic socioemotional support provider. There were no significant correlations between year in program and ratings of faculty support, r = .02, studentpeer support, r = .10, family/friend support, r = .03, program satisfaction, r = -.03, or life satisfaction, r = -.05. We also tested whether ratings of social support and satisfaction differed depending on a number of other participant and program characteristics. Female students rated their social support from family/ friends significantly higher than males, t(225) = 2.43, p < .05, but no other gender differences on any of the measures were found. There were no significant differences on any of the social support or satisfaction measures depending on whether the student identified his or her race/ethnicity as Caucasian or another ethnic group. Age was significantly correlated with life satisfaction ratings, r = -.13, p = .05, indicating that younger students were more satisfied with their lives, but no other significant correlations with age were found. Doctoral-level students reported significantly more academic socioemotional support from student-peers than PsyD students, t(212) = 2.21, p < .05, but no other differences between PhD and PsyD students were found. Last, students from APA-accredited counseling psychology programs, on average, reported significantly more life satisfaction than students from clinical programs, t(219) = 2.16, p < .05, but no other differences between these two types of programs were found on any of the other measures of satisfaction or social support.

We were next interested in examining which source of socioemotional academic support best predicted student satisfaction with their degree program. As reported in Table 1, perceived

support from faculty, student-peers, and family/friends were each significantly correlated with total program satisfaction. A regression analysis, with all three types of support entered simultaneously, was significant, R = .53, $R^2 = .28$, F(3, 224) = 29.42, p <.001, indicating that, taken together, these variables explained roughly 28% of the variance in program satisfaction. Of the three types of support, both faculty support, b = 0.22, t = 6.40, p <.001, $sr_{\text{unique}}^2 = .13$ (explaining 13% of variance in program satisfaction uniquely), and student-peer support, b = 0.11, t = 3.07, p < .01, $sr_{\text{unique}}^2 = .03$ (explaining 3% of the variance in program satisfaction uniquely), explained a significant amount of unique variance in program satisfaction. However, support from family/ friends did not uniquely predict program satisfaction, b = 0.00, t = $0.09, p > .05, sr_{unique}^2 = .00$. Given the model, for every 0.41standard-deviation increase in faculty support and 0.20-standarddeviation increase in student-peer support, there was a 1- standarddeviation increase in program satisfaction.

Last, we were interested in examining which source of academic socioemotional support best predicted life satisfaction while in graduate school. Based on norms for the SWLS (Kobau, Sniezek, Zack, Lucas, & Burns, 2010), the graduate students who participated in this study, on average, expressed an above average level of life satisfaction. As reported in Table 1, perceived support from faculty, student-peers, and family/friends were each significantly correlated with life satisfaction. A regression analysis, with all three types of support entered simultaneously, was significant, R = $.55, R^2 = .30, F(3, 224) = 31.60, p < .001$, indicating that, taken together, these variables explained roughly 30% of the variance in life satisfaction. Further, each of the three types of support were found to explain a significant amount of unique variance in life satisfaction: faculty, b = 0.20, t = 4.72, p < .001, $sr_{\text{unique}}^2 = .07$ (explaining 7% of variance in life satisfaction uniquely); studentpeer support, b = 0.12, t = 2.77, p < .01, $sr_{\text{unique}}^2 = .02$ (explaining 2% of the variance in life satisfaction uniquely); and family/friend support, b = 0.17, t = 3.82, p < .001, $sr_{\text{unique}}^2 = .05$ (explaining 5%) of the variance in life satisfaction uniquely). Specifically, given the model, for every 0.30-standard-deviation increase in faculty support, every 0.18-standard-deviation increase in student-peer support, and for every 0.23-standard-deviation increase in family/ friend support, there was a 1-standard-deviation increase in life satisfaction.

Discussion

The purpose of this study was to examine the relationship between ratings of perceived academic social support from faculty

p < .01. ** p < .001.

mentors, student-peers, and family/friends outside of the program and professional psychology graduate students' ratings of satisfaction with their training program and general life. Specifically, the two main aims of this study were to (a) test whether levels of perceived support differed between the three support sources, and (b) test whether the three support sources differed in their relationship with the satisfaction ratings. Regarding the first aim of the study, family/friends outside the program and student-peers within the program were perceived by the participating graduate students as providing more academic socioemotional support than faculty members within the program. There may be several explanations for this finding. It is possible that students perceive more support from family/friends than faculty members because of the preexisting relationships family/friends that may have been present several years prior to the students entering the program. Relationships that have been built over long periods of time might expectedly be seen as more supportive across many domains of life. It should be noted, though, that there was no relationship between length of time in an academic program and perceived level of support from the three groups. Thus, perceived support from faculty members or student-peers is not likely to increase just with increased exposure to these relationships. It is also possible that because of the evaluative role of faculty members, graduate students may feel less comfortable sharing their concerns and difficulties with them. On the other hand, student-peers, who may be experiencing the same difficulties and who are not in an evaluative role, may be seen as safer to turn to for help. In addition, studentpeers may be seen as more similar in age, background, and ideology, and thus be more readily available to provide support. In many professional psychology programs, student cohorts also spend a significant amount of time with each other, both inside and outside of the classroom. This time together may provide additional opportunities for building trust and seeking help from one another. Whatever the reason, the findings from this study suggest that faculty mentors are not perceived as the ones who provide the most academic socioemotional support to their students.

Even though the participating students perceived higher levels of support from family/friends and student-peers, perceived levels of faculty support most highly predicted training program and life satisfaction. These results are similar to Clark et al.'s (2009) finding that graduate student burnout was significantly predicted by faculty support, but not family/friend or student-peer support. Thus, even though faculty members may not be perceived as contributing as much support to students as the other two groups, what support they do offer is vital in determining a professional psychology graduate student's satisfaction.

Although faculty member support was the best predictor of graduate student program satisfaction, student-peer support also significantly predicted this type of satisfaction. In other words, program satisfaction was only significantly predicted by support from the two groups that were directly related to program operations, namely, fellow students and faculty. Thus, the climate set by both groups within a program appears to be important in explaining how positively or negatively students will experience their doctoral training. This result matches Veilleux et al.'s (2012) finding that overall program climate is highly related to program satisfaction. Further, although faculty member support was also the best predictor of life satisfaction, all three sources of support were judged by students as playing a valuable role in determining

this type of satisfaction. This finding illustrates the important role of having consistent and diverse social support in living a satisfying life during graduate school. This study also found a significant positive relationship between the two dependent variables—program satisfaction and life satisfaction. This finding illustrates the importance of attending to graduate students feelings about their program while in school, as it has broader implications on their overall life. However, the relationship between these variables is correlational and it is possible that students who are more satisfied with their life may find it easier to be satisfied with their graduate program, and in turn, to find support from faculty members, student-peers, and family/friends.

The limitations with this study should be considered when interpreting the results. First, the measure of social support was specific to more academic based socioemotional support. Example items for this measure include "encouraged you to talk openly about anxiety and fears that detract from your work" and "gone out of his/her way to promote your academic interests." We chose this measure specifically because we believed that the items could apply equally to all three support sources—in other words, we believed they were types of support that faculty mentors, studentpeers, and family/friends could provide. However, other types of social support also exist. Faculty mentors may have been rated higher if instrumental support items such as "given you authorship on publications" and "helped you improve your writing skills" (Tenenbaum et al., 2001) were included in this study. In turn, family/friends may have been rated higher if more personal support items such as "helped when a person whom you thought was a good friend insulted you and told you that he/she didn't want to see you again" and "comforts you when you need it by holding you in their arms" (Sarason, Levine, Basham, & Sarason, 1983) were included in the study. Both types of additional items may be useful in predicting program and life satisfaction; however, we chose not to include these items so the three support groups could be more equally compared.

Second, this study did not account for the specific program as a potential nesting variable. We chose not to ask students to name their programs in order to more fully provide students with anonymity. However, each program has its own unique culture and strengths, with some programs being set up to more fully foster faculty–student relationships and others to foster student–student relationships. Because we did not ask students to provide the names of their programs, we do not know how many APA-accredited training programs this data actually represents. Given the sample size and the broad nationwide recruitment for this study, one might assume that students from a variety of programs participated; however, this is an assumption and different results may be found within individual programs that may not be represented in the sample.

Third, the generalizability of the study was limited, given the recruitment method that was used. A few program training directors indicated that they would not pass the recruitment e-mail on to their students because they did not want them tasked with extra demands. In addition, one might guess that some program training directors did not pass the recruitment e-mail on to their students because it was lost in their inbox. Students from both types of programs could have different experiences with support from faculty members compared with those who were able to participate in the study. Similarly, there may have been certain types of

students who were less likely to participate in an online survey on "social support and training satisfaction." These results may not represent those types of students.

Conclusions and Future Directions

Based on these findings, there are several areas for future research. One future area of research could be to examine additional variables that contribute to program satisfaction besides social support. Although the three types of social support accounted for 28% of the variance in program satisfaction, it will be important to understand what other factors contribute to the remaining variance in program satisfaction in order to design appropriate interventions to increase students' program satisfaction. Possible variables for examination include student workload, emphasis on self-care, and opportunities for clinical practicum and research activity. In addition, we only assessed one type of faculty support as measured by the Mentoring Relationships in Graduate School scale. This measure also includes subscales of instrumental and networking support, and further research is needed examining the relationship between these types of support offered by faculty members and graduate student satisfaction with their training programs.

Another area to explore with future research is which student and program variables serve as potential moderators of the relationship between program satisfaction and social support from different groups. Some potential program moderators that could be tested in future research include degree type (i.e., PhD, PsyD), training model (e.g., scientist-practitioner, practitioner-scholar), field (e.g., clinical, counseling), and support model (e.g., mentorship, cohort). Student variables such as student personality and career goals could also be useful in predicting the relationship between support sources and program satisfaction.

Yet additional research could examine whether interventions that aim to increase academic socioemotional support from faculty mentors would result in increased graduate student program or life satisfaction. Potential interventions could include increased faculty support of student self-care and monitoring of faculty ethical behavior. A recent survey indicated that 44% of students reported dissatisfaction with their program's emphasis on self-care (Myers et al., 2012). Faculty modeling of self-care practices, psychoeducation on self-care strategies, destignatizing self-seeking among trainees, the formation of student support groups, and having advanced students lead seminars for younger cohorts on stress management are all possible interventions to address student selfcare (Myers et al., 2012; Rummell, 2015). Faculty ethical behavior is another relevant domain. For example, January, Meyerson, Reddy, Docherty, and Klonoff (2014) illustrated that unethical decision making by program faculty is negatively correlated with a positive socioemotional climate of the doctoral program. Given that socioemotional climate has been found to be correlated with program satisfaction, specific interventions that address faculty's commitment to ethical behavior (e.g., continuing education, monitoring of ethical conduct) could serve to increase program satisfaction (Veilleux et al., 2012). The Graduate Program Climate Scale could be used to examine baseline and postintervention program climate related to such interventions, as it has been found to be correlated with program satisfaction. Additionally, the measures used in this study may be useful for programs to monitor the

satisfaction of their students over time. These suggested interventions might be a helpful avenue for addressing the high attrition rates and high stress levels that are currently present in professional psychology graduate students. Along these lines, increasing the well-being and satisfaction of doctoral clinical and counseling psychology students could have additional positive results on the quality of care that students provide in their clinical work (Barnett et al., 2007).

In summary, the results of this study provide a more detailed understanding of the relationship between sources of social support and program and life satisfaction for doctoral students in APA-accredited professional psychology programs. These results highlight the valuable role that faculty mentors play in their students' training experiences. Based on these findings, we recommend that faculty members have frequent discussions with their students about the support that they are providing and whether or not it is matching their students' expectations. Such discussions may facilitate students feeling comfortable turning to faculty members when there is a need. In addition to the role faculty members play, this study found that student-peer support also predicts program satisfaction, and student-peer and family/friend support predicts life satisfaction. Based on this finding, programs may want to specifically encourage students to build and maintain strong relationships with others as an effort in self-care. Such discussions could occur during program orientation, in advising meetings, and in other program events.

References

- Ali, A., & Kohun, F. (2006). Dealing with isolation feelings in IS doctoral programs. *International Journal of Doctoral Studies*, 1, 21–33. Retrieved from http://ijds.org/Volume1/IJDSv1p021-033Ali13.pdf
- Alleyne, M., Alleyne, P., & Greenidge, D. (2010). Life satisfaction and perceived stress among university students in Barbados. *Journal of Psychology in Africa*, 20, 291–298.
- American Psychological Association. (2002). Ethical principles of psychologists and code of conduct. *American Psychologist*, 57, 1060–1073. http://dx.doi.org/10.1037/0003-066X.57.12.1060
- Barnett, J. E., Baker, E. K., Elman, N. S., & Schoener, G. R. (2007). In pursuit of wellness: The self-care imperative. *Professional Psychology: Research and Practice*, 38, 603–612. http://dx.doi.org/10.1037/0735-7028.38.6.603
- Bayram, N., & Bilgel, N. (2008). The prevalence and socio-demographic correlations of depression, anxiety and stress among a group of university students. Social Psychiatry and Psychiatric Epidemiology, 43, 667– 672. http://dx.doi.org/10.1007/s00127-008-0345-x
- Clark, H. D., Murdock, N. L., & Koetting, K. (2009). Predicting burnout and career choice satisfaction in counseling psychology graduate students. *The Counseling Psychologist*, 37, 580–606. http://dx.doi.org/10 .1177/0011000008319985
- Cushway, D. (1992). Stress in clinical psychology trainees. *British Journal of Clinical Psychology*, 31, 169–179. http://dx.doi.org/10.1111/j.2044-8260.1992.tb00981.x
- DeBerard, M. S., & Masters, K. S. (2014). Psychosocial correlates of the Short-Form-36 Multidimensional Health Survey in university students. *Psychology*, *5*, 941–949.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment, 49*, 71–75. http://dx.doi.org/10.1207/s15327752jpa4901_13
- El-Ghoroury, N. H., Galper, D. I., Sawaqdeh, A., & Bufka, L. F. (2012). Stress, coping, and barriers to wellness among psychology graduate

- students. *Training and Education in Professional Psychology*, 6, 122–134. http://dx.doi.org/10.1037/a0028768
- January, A. M., Meyerson, D. A., Reddy, L. F., Docherty, A. R., & Klonoff, E. A. (2014). Impressions of misconduct: Graduate students' perception of faculty ethical violations in scientist-practitioner clinical psychology programs. *Training and Education in Professional Psychology*, 8, 261–268. http://dx.doi.org/10.1037/tep0000059
- Kashdan, T. B. (2014, April). Ten unwritten rules for success in graduate school. Psychology Today. Retrieved from https://www.psychologytoday.com/blog/curious/201404/ten-unwritten-rules-success-in-graduate-school
- Kobau, R., Sniezek, J., Zack, M. M., Lucas, R. E., & Burns, A. (2010).
 Well-being assessment: An evaluation of well-being scales for public health and population estimates of well-being among US adults. *Applied Psychology: Health and Well-Being*, 2, 272–297.
- Lacey, K., Zaharia, M. D., Griffiths, J., Ravindran, A. V., Merali, Z., & Anisman, H. (2000). A prospective study of neuroendocrine and immune alterations associated with the stress of an oral academic examination among graduate students. *Psychoneuroendocrinology*, 25, 339–356. http://dx.doi.org/10.1016/S0306-4530(99)00059-1
- Lovitts, B. E. (2001). Leaving the Ivory Tower: The causes and consequences of departure from doctoral study. Lanham, MD: Rowman & Littlefield.
- Lovitts, B. E., & Nelson, C. (2000). The hidden crisis in graduate education: Attrition from Ph.D. programs. Academe, 86, 44–50. http://dx.doi.org/10.2307/40251951
- Lund, H. G., Reider, B. D., Whiting, A. B., & Prichard, J. R. (2010). Sleep patterns and predictors of disturbed sleep in a large population of college students. *Journal of Adolescent Health*, 46, 124–132. http://dx.doi.org/ 10.1016/j.jadohealth.2009.06.016
- Myers, S. B., Sweeney, A. C., Popick, V., Wesley, K., Bordfeld, A., & Fingerhut, R. (2012). Self-care practices and perceived stress levels

- among psychology graduate students. *Training and Education in Professional Psychology*, 6, 55–66. http://dx.doi.org/10.1037/a0026534
- Powers, J. D., & Swick, D. C. (2012). Straight talk from recent grads: Tips for successfully surviving your doctoral program. *Journal of Social Work Education*, 48, 389–394. http://dx.doi.org/10.5175/JSWE.2012 .201000073
- Rummell, C. M. (2015). An exploratory study of psychology graduate student workload, health, and program satisfaction. *Professional Psychology: Research and Practice*, 46, 391–399. http://dx.doi.org/10.1037/ pro0000056
- Sarason, I. G., Levine, H. M., Basham, R. B., & Sarason, B. R. (1983).
 Assessing social support: The Social Support Questionnaire. *Journal of Personality and Social Psychology*, 44, 127–139. http://dx.doi.org/10.1037/0022-3514.44.1.127
- Tartakovsky, M. (2013, January). 12 tips for surviving and thriving in grad school. *PsychCentral*. Retrieved from http://psychcentral.com/lib/12tips-for-surviving-and-thriving-in-grad-school/
- Taylor, S. E. (2011). Social support: A review. In H. S. Friedman (Ed.), Oxford handbook of health psychology (pp. 189–214). New York, NY: Oxford University Press.
- Tenenbaum, H. R., Crosby, F. J., & Gliner, M. D. (2001). Mentoring relationships in graduate school. *Journal of Vocational Behavior*, *59*, 326–341. http://dx.doi.org/10.1006/jvbe.2001.1804
- Veilleux, J. C., January, A. M., VanderVeen, J. W., Reddy, L. F., & Klonoff, E. A. (2012). Perceptions of climate in clinical psychology doctoral programs: Development and initial validation of the Graduate Program Climate Scale. *Training and Education in Professional Psychology*, 6, 211–219. http://dx.doi.org/10.1037/a0030303

Received August 17, 2015
Revision received January 21, 2016
Accepted February 18, 2016