Perceptions of Climate in Clinical Psychology Doctoral Programs:
Development and Initial Validation of the Graduate Program Climate Scale

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Measurement of program climate, defined as a sense of environmental safety amid respectful relationships and effective organizational systems, has been associated with a myriad of important outcomes in school and workplace settings. However, climate has received scant attention in the realm of graduate training, including training in psychology health service programs, despite related research suggesting that quality of mentor–mentee relationships and the research training environment influences student satisfaction and educational attainment. The current study presents the initial development of the Graduate Program Climate Scale, a brief 20-item assessment of climate derived from school and workplace climate measures, targeted at clinical psychology doctoral students in scientist-practitioner programs. The scale was found to be internally consistent and correlated with program satisfaction, satisfaction with evaluation and feedback procedures, and confidence in research skills. Importantly, more positive program climate also predicted outcomes related to peers with problems of professional competence, suggesting that program climate is associated with students’ faith in faculty to handle professional competence issues. Results from the current study suggest that the Graduate Program Climate Scale may be a useful tool for examining program-level characteristics and processes associated with success in clinical psychology training programs.

Keywords: program climate, clinical training, problems of professional competence, program satisfaction

In the realm of education research, school climate is defined as the subjective quality of school life, including a sense of safety, respectful relationships among students and staff, and effective organizational structures (Cohen, McCabe, Michelli, & Pickeral, 2009). Strong climate predicts important outcomes in K–12 education, such as academic achievement, social skills, and decreased interpersonal violence (Brand, Felner, Seitsinger, Burns, & Bolton, 2008; Cohen, 2006; Rumberger, 1987). Similarly, climate investigations in the workplace have established that organizational climate is related to productivity and innovation (Patterson et al., 2004).

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Although climate is an important variable of study in both occupational and early educational environments, climate has received limited attention at the level of graduate study, including for graduate programs in clinical psychology. Within the United States, and across all disciplines, only about 56% of students who begin doctoral programs complete them within 10 years (Council of Graduate Schools, 2008). Completion rates are slightly higher in psychology (65%; Council of Graduate Schools, 2008), though a sizable percentage of students never receive their degrees. Several qualitative studies across multiple disciplines have suggested that the character of the department, including a sense of community connectedness, strongly influences both success in graduate school (Bain, Fedynich, & Knight, 2011) and attrition rates (Lovitts & Tchorz, 2000). However, little empirical research has focused on defining and measuring graduate program climate, and no reliable and valid measures exist for assessment of climate within graduate programs in clinical psychology.

Due to the paucity of research focused on program climate and clinical psychology specifically, we expanded our literature review to examine variables conceptually related to program climate (e.g., research training environments, advisor relationships, competency development) as well as samples from other programs focused on training psychology health service providers. Psychology health service providers are doctoral-level licensed practitioners trained in assessment and intervention, whereas training programs in psychology health service provision include clinical, counseling, and school psychology programs, regardless of whether those programs lead to a PsyD, PhD, or EdD (Michalski & Kohout, 2011). Several variables conceptually related to program climate have been studied and have been shown to influence satisfaction and performance within psychology health service programs. First, perceptions of the research training environment (Gelso, 1993) influence students’ attitudes toward, and interest in, performing research (Kahn & Schlosser, 2010; Royalty, Gelso, Mallinckrodt, & Garrett, 1986). Research training environments are conceptualized as all facets of a graduate training program (e.g., faculty, students, staff, departmental) that signify attitudes toward research (Gelso, 1993), where faculty and student attitudes toward research and reinforcement of research activities may represent one aspect of overall program climate. Similarly, socialization of responsible and ethical research behavior at the department level creates the perception of an ethical environment, which has been associated with overall program satisfaction, mentor satisfaction, and ethical behavior in the field (Fisher, Fried, Goodman, & Germano, 2009). Research indicates that programs differ in regard to research training and ethical environments (Gelso, 1993; Kahn & Schlosser, 2010), suggesting that there may also be program-level differences in overall climate.

On a smaller scale, psychology health service programs have investigated the role of a “working alliance” in graduate school, defined as the quality of the relationship between a student and his or her adviser or mentor. Research has demonstrated positive associations between the advisory working alliance (as measured by both student and mentor) and students’ interest and self-efficacy in performing research (Kahn & Schlosser, 2010; Schlosser & Gelso, 2005). Moreover, graduate students who feel their mentors are concerned about their personal welfare rate faculty advisors as more competent (Schroeder & Mynatt, 1993), and graduate students who perceive advisors as providing more socioemotional support report higher program satisfaction, higher publication rates, and increased receipt of graduate student research awards (Taylor & Neimeyer, 2009).

Thus, a supportive research training environment predicts research-relevant outcomes, and strong advisor–advisee relationships are likewise associated with research interests as well as overall program satisfaction (Taylor & Neimeyer, 2009). Advising relationships are a key part of graduate school, as around two-thirds of graduate students in clinical psychology have a primary faculty mentor during doctoral training (Clark, Harden, & Johnson, 2000). However, students in clinical psychology graduate programs interact with more people than just their major advisors: They take classes from other faculty, learn clinic policies from a clinic director, work with practicum supervisors, and form relationships with peers. Thus, measurement of overall program climate might provide additional information beyond that of the mentoring relationship and the research training environment.

In workplace and school settings, climate is frequently conceptualized as a respectful and collaborative learning environment. Although some researchers include assessments of resources (e.g., adequate financial support, library resources, grant-writing workshops) as part of the definition of program climate (e.g., Adams, 1993; Levine & Weitz, 1968), more often the focus is on socioemotional factors such as cooperation (Seymour & Hewitt, 1997), feeling valued (Tyler & Lind, 1992), and a general sense of support (Cross, 2001; Goplerud, 1980). On a qualitative level, when clinical psychology graduate students were asked to identify variables that are important to a caring academic climate, they identified general respect, intellectual respect, and instructor responsibility as key components of faculty caring (Schaefer & Schaefer, 1993). Not surprisingly, when it came to their peers, graduate students specifically identified cooperative peer behaviors, friendliness, and support in a crisis as important elements from classmates that influence their perception of academic climate (Schaefer & Schaefer, 1993).

Burgeoning research in the area of competency achievement suggests that program-level assessment of climate may be warranted for psychology health service graduate programs. In addition to outcomes such as attrition and completion, doctoral training in the provision of psychological health services has moved toward a competency-based model (Fouda et al., 2009; Kaslow et al., 2004; Leigh et al., 2007; Roberts, Borden, Christiansen, & Lopez, 2005). By the time of graduation, doctoral candidates are expected to perform competently in a variety of areas, including content-based functional areas (e.g., research methodology, knowledge of assessment, intervention theory and techniques) as well as professional attitudes and behavior (e.g., cultural sensitivity, self-assessment, professionalism, successfully working with professionals of different backgrounds). Graduate programs, as well as internship sites and state licensing boards, are charged with “gatekeeping” responsibilities, to assure the public that psychology graduates are competent to perform the tasks of psychologists, which, more often than not, includes direct care of individuals struggling with mental and physical health concerns (Brear, Dorman, & Luscre, 2008).

The issue of competency, and assessment of competency, becomes particularly salient for students who struggle to attain
competency benchmarks, labeled in the literature as “trainees with problems of professional competence” (Elman & Forrest, 2007). Although, on the surface, assessment of program climate appears to be unrelated to students struggling with attainment of competence, the connection has been implied in recent work on students with competence problems. Namely, it has been demonstrated that faculty (Wester, Christianson, Foud, & Santiago-Rivera, 2008) and peers (Oliver, Bernstein, Anderson, Blashfield, & Roberts, 2004; Rosenberg, Getzelman, Arcinue, & Oren, 2005) are affected when a program has a student with problems of professional competence. Moreover, experts assert that programs that adopt a systemic perspective, handling issues as a program rather than as individual faculty, may have greater success handling student issues while retaining a quality training environment (Behnke, 2008).

Likewise, graduate students need to have confidence that the faculty will intervene and remediate students with problems, even though faculty are ethically mandated to protect the confidentiality of struggling students. Past research on graduate student perceptions has found that upward of 50% of graduate students can identify a peer with problems of professional competence (Rosenberg et al., 2005; Shen-Miller et al., 2011), and that students report feelings of resentment toward the peer, in addition to anger at the faculty for perceived lack of attention to the problem. Thus, it seems reasonable to predict that graduate students in programs with more positive climates will have more faith in the faculty to identify and handle peer problems.

Current Study

The purpose of this article is twofold. The first is to present the development of a theoretically derived measure of program climate, the Graduate Program Climate Scale, for use in clinical psychology graduate programs. The scale is based on measurements of climate in established settings (e.g., secondary school and organizations), and we provide initial data supporting the reliability and validity of scores on this new scale among clinical psychology doctoral students in scientist-practitioner programs. The second purpose involves an examination of correlates with the new scale (1 = almost never; 2 = occasionally; 3 = frequently; 4 = almost always).

Scale Construction

Rather than construct an entirely novel set of items, we chose to adapt existing climate measures for a clinical psychology graduate student population. In particular, we chose to focus on the social and emotional aspects of climate. Sixteen items were adapted from four of the subscales (respect, trust, morale, and caring) of a secondary school climate measure (e.g., Fox et al., 1973; Johnson, Dixon, & Johnson, 1992). This measure has been similarly adapted for a general undergraduate population (Johnson, Johnson, Kranch, & Zimmerman, 1999) and undergraduate nursing students (Cavanaugh & Simmons, 1997). An additional five items were adapted from the “good supervision” subscale of a workplace-climate measure (Kirby, Knapper, Evans, Carty, & Gadula, 2003). These questions, adapted to ask about “faculty” rather than “supervisors,” assessed willingness to give advice and the tendency for faculty to go above and beyond job requirements, such as getting to know the students as individuals and taking all ideas seriously.

Finally, as the majority of the items on the prior measures assessed instructor or supervisor relationships to students/employees, we added five additional items to assess students’ opinions of one another. These items were added, in large part, due to extant research suggesting that peers are affected by fellow trainees who suffer from problems of professional competence (e.g., Oliver et al., 2004; Rosenberg et al., 2005); thus, interstudent relations seemed an important aspect of overall climate to assess. For example, we added “Students in my program are proud to be students here” as a direct parallel to the adapted item taken from the secondary school climate measure, “Faculty in my program are proud to be faculty.” All items were presented on a 4-point Likert scale (e.g., positive feedback) and be more accepting of critical feedback.

Method

Survey Recruitment Procedures

Participants were clinical psychology graduate students enrolled in Council of University Directors of Clinical Psychology (CUDCP) member programs across the United States and Canada. CUDCP has the largest number of member programs of the psychology health service training organizations and includes clinical psychology programs committed to training in the scientist-practitioner or clinical science model. The project was initiated by student representatives to the board of CUDCP as part of a yearly survey of students from CUDCP-member programs. At the time of data collection, CUDCP included 169 member clinical psychology training programs in the United States and Canada. Programs were contacted via student liaisons, who, in turn, disseminated survey information to all clinical psychology students enrolled in that program. Of the 169 programs, 153 had identified student liaisons and remaining programs were contacted through the Director of Clinical Training. To protect the confidentiality of participants, particularly those from programs with small enrollments, program information was not obtained and we cannot state how many member programs are represented. All survey responses were collected using SurveyMonkey online survey software (Portland, Oregon).

Participants

Although 765 students began the survey, only 652 completed all climate questions and were retained for analysis in the current study. Completers were compared with noncompleters, and completers were further along in the program (M = 3.34, SD = 1.69).
than noncompleters ($M = 2.89, SD = 1.94$), $t(73) = -2.52, p < .05$. No differences in age, gender or degree type were found between completers and noncompleters.

Of the final sample of 652 clinical psychology doctoral students, 80.8% were women and the mean age was 27.62 ($SD = 5.06$) years. Students self-identified their ethnicity as White (83.7%), Hispanic/Latino/a (4.1%), Asian/Asian American (3.5%), African American (2.8%), Biracial (2.8%), and Native American/Hawaiian (2.2%); 1.6% of participants specified “Other” ethnicity. The vast majority of participants were PhD seeking (87.6%), with a few expecting to earn a PsyD (9.0%), a terminal master’s (3.1%), or another degree (0.4%). Respondents were distributed relatively equally across year in the program: first-year students (15.6%), second-year students (21.6%), third-year students (17.6%), fourth-year students (18.6%), fifth-year students (15.5%), and six-year students and above (11.0%).

**Results**

Of note, due to the number of significance tests included here, we adopted a conservative strategy for determination of significance and set our study-wide alpha level at .01 to control for familywise error.

**Exploratory Factor Analysis**

Using a random number generator, we split the overall sample into two random samples, each with 326 participants. An exploratory factor analysis was conducted with the first random sample. Because the data were measured using a 4-point scale, we used polychoric correlations and conducted an ordinal factor analysis in PRELIS. We anticipated a one-factor solution but tested models with one to four factors.

Initial analysis of communalities suggested six underperforming items. When these items were excluded, data were analyzed using a principal factor analysis with oblique oblimin rotation. The scree plot suggested one factor. Factor loadings on Factor 1 were quite high, and as they were significantly higher than loadings on Factor 2, we retained a one-factor solution as the best fit for the exploratory subsample. Factor loadings for the final Graduate Program Climate Scale are listed in Table 1.

**Confirmatory Factor Analysis**

We conducted a confirmatory factor analysis in LISREL on the second random sample ($n = 326$), using polychoric correlations and the weighted least squares estimation method. The model resulted in a comparative fit index (CFI) of .99, which is a good fit according to acceptable cutoffs of greater than .95 (Hu & Bentler, 1999). The model also had a root mean square error of approximation (RMSEA) of .06 (90% CI [.05 to .07]), which suggests a fair fit of the data. The final scale, consisting of 20 items, had an alpha of .96 in the combined sample ($N = 652$).

<table>
<thead>
<tr>
<th>Item</th>
<th>Loading</th>
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<tbody>
<tr>
<td>2. Students feel that faculty are “on their side.”</td>
<td>.86</td>
</tr>
<tr>
<td>3. My program makes students enthusiastic about learning.</td>
<td>.80</td>
</tr>
<tr>
<td>4. The Director of Clinical Training (DCT) really cares about the clinical students.</td>
<td>.57</td>
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<tr>
<td>5. Faculty treat students as persons.</td>
<td>.85</td>
</tr>
<tr>
<td>6. Although we (the faculty and graduate students) don’t always agree, we can share our concerns with each other openly.</td>
<td>.78</td>
</tr>
<tr>
<td>7. Faculty feel pride in the program and in its students.</td>
<td>.76</td>
</tr>
<tr>
<td>8. I think faculty in my program care about me as a person and are concerned about more than just how well I perform my role at school.</td>
<td>.86</td>
</tr>
<tr>
<td>10. Students can count on faculty to listen to their side of the story and to be fair.</td>
<td>.86</td>
</tr>
<tr>
<td>12. I feel wanted and needed in my program.</td>
<td>.81</td>
</tr>
<tr>
<td>13. Faculty in my program are proud to be faculty.</td>
<td>.65</td>
</tr>
<tr>
<td>14. Faculty trust students to use good judgment.</td>
<td>.82</td>
</tr>
<tr>
<td>15. Faculty and students would rise to the defense of the program if it were challenged.</td>
<td>.79</td>
</tr>
<tr>
<td>17. Most people in my program are kind.</td>
<td>.70</td>
</tr>
<tr>
<td>18. Most of the faculty really try hard to get to know the graduate students.</td>
<td>.75</td>
</tr>
<tr>
<td>19. Faculty in this program seem to go out of their way to be friendly toward graduate students.</td>
<td>.83</td>
</tr>
<tr>
<td>20. The faculty in this program always seem ready to give help and advice (on the best way to learn something new).</td>
<td>.85</td>
</tr>
<tr>
<td>21. Faculty in this program generally take graduate student ideas and interests seriously.</td>
<td>.87</td>
</tr>
<tr>
<td>22. Students in my program are proud to be students here.</td>
<td>.78</td>
</tr>
<tr>
<td>23. Students feel pride in the program and in the faculty.</td>
<td>.81</td>
</tr>
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</table>

*Note. N = 326. Data are from a principal factor analysis using polychoric correlation matrix.*
Correlations With Other Variables
Before investigating the relationship of climate to other variables, we evaluated the scale for any gender or ethnicity differences in perceptions of program climate. We compared climate scores for students who identified as White \((n = 546)\) with students who identified as an ethnic/racial minority \((n = 99)\) and found no differences, \(t(643) = 1.27, ns\), and no differences by gender, \(t(630) = 1.42, ns\).

Satisfaction With Program
We assessed the relationship between program climate and ratings of program satisfaction \((1 = \text{very dissatisfied} \text{ to } 5 = \text{very satisfied})\), with the prediction that satisfaction with a variety of program domains would be associated with a more positive program climate. We found that program climate was positively correlated with all indices of satisfaction, including academic \((r = .41)\), research \((r = .44)\), clinical training \((r = .45)\), professional development \((r = .57)\), advising \((r = .61)\), the director of clinical training \((r = .45)\), and departmental relationships \((r = .81)\), all \(ps < .01\).

Problems of Professional Competence
Participants were asked a variety of questions about their experience with and perceptions of students with problems of professional competence. In particular, students were asked if they have ever been asked to read about problems of professional competence, their hypothetical responses if they were ever to be identified as a student with competence problems, their knowledge of students believed to be suffering from a problem of professional competence, and effectiveness of faculty in handling problems of professional competence. Responses to these questions were correlated with program climate score, as we predicted that a more positive program climate would be related to greater knowledge of issues surrounding problems of professional competence and greater faith in the faculty to effectively handle problems that arise.

Overall, 61.2% of students responded “yes” when asked if their program encouraged them to read literature on trainee impairment or problems of professional competence. Students who reported they had been encouraged to read about problems of professional competence \((M = 3.10, SD = .56, N = 399)\) have more positive program climates than students who indicated they had never been asked to read about problems of professional competence \((M = 2.96, SD = .65, N = 189)\), \(t(586) = 2.75, p < .01\).

Students were asked, hypothetically, if identified as a student with a problem of professional competence, what is the percentage likelihood they would (a) pursue legal action, (b) follow remediation recommendations, (c) leave the field, and (d) enroll in a new program. The majority of students indicated they would follow remediation suggestions \((M = 79.04, SD = 31.01, N = 358)\). Participants indicated an average percentage likelihood of 12.83% that they would leave psychology \((SD = 19.94, N = 350)\), 12.95% indicated the likelihood of taking legal action against the program \((SD = 25.98, N = 349)\), and a 16.07% indicated the likelihood of enrolling in a new program \((SD = 24.77, N = 347)\). We calculated correlations between percentage likelihood scores and program climate, and no relationship was found between perceptions of climate and the likelihood of following remediation suggestions or leaving the field. More positive program climate was associated with a lower likelihood of pursuing legal action \(r = -.20, p < .001\), and a lower likelihood of enrolling in a different program, \(r = -.24, p < .001\). These results suggest that climate is related to how retaliatory and rejected the student would feel by the program, although not the entire practice of psychology.

Participants were also asked about their knowledge of fellow students who they believe suffer from a problem of professional competence. Of the 519 participants who answered the question, 300 \((57.8\%)\) indicated they were aware of one or more students with a problem of professional competence. A “percentage known” variable was calculated by dividing the number of students each participant identified over the number of students the participant believed the faculty were aware of. Overall, participants believed that faculty were aware of 67.26% of problem students. Participants were also asked their perceptions of how effective faculty were at identifying struggling students \((1 = \text{ineffective}, 5 = \text{extremely effective}; M = 3.03, SD = 1.07)\), when examined in conjunction with climate scores, increased program climate was associated with increased perceptions of faculty effectiveness in identifying students with problems of professional competence, \(r = .46, p < .001\).

Evaluation and Feedback
We asked students several questions about the evaluation process within their programs, as we expected students with stronger program climates to be more satisfied with the feedback process in general, and the balance of feedback more specifically. For these analyses, we excluded first-year students, as the survey was conducted during the fall semester, and it seemed unlikely first year students would have experienced evaluation to the same degree as older students. Thus, the analyses in this section were conducted with a sample of 550 students.

Participants were asked if their program has a formal summative evaluation process, and of the 453 students who responded to the question, 401 \((72.9\%)\) reported that they did. Only 8 students indicated “no,” and 44 were unsure. Students were asked how satisfied they were with the evaluation process \((1 = \text{dissatisfied}, 5 = \text{satisfied})\) and reported a mean satisfaction rating of 3.45 \((SD = 1.23)\). We found that a more positive climate was associated with greater evaluation satisfaction, \(r = .56, p < .001\).

We asked participants to rate the current balance of feedback in their program \((1 = \text{all positive}; 2 = \text{mostly positive, some negative}; 3 = \text{balanced positive/negative}; 4 = \text{mostly negative, some positive}; 5 = \text{all negative})\). Due to the small number of students who reported “all negative” feedback \((n = 3)\), the two predominantly categories were combined into one “negative or mostly negative” category, and the two predominantly positive categories were combined into one “positive or mostly positive” category. The majority of students \((65.9\%, n = 277)\) rated their feedback as all or mostly positive. One quarter \((25\%, n = 105)\) of students rated their current feedback as balanced between positive and negative, and 9% of students \((n = 38)\) rated their current feedback as all or mostly negative.

Using one-way analysis of variance (ANOVA), we compared climate scores across feedback categories. The ANOVA revealed
differences in climate scores by feedback groups, $F(2, 417) = 40.58, p < .001$. Tukey post hoc tests revealed no difference in climate scores between students with predominantly positive feedback ($M = 3.08, SD = .54$) and those with balanced feedback ($M = 3.02, SD = .52$). However, climate scores were significantly lower for students who received predominately negative feedback ($M = 2.25, SD = .57$). Stated differently, those getting a balance of positive and negative feedback perceive the program climate just as warm as those who receive mostly positive feedback, although students who receive mostly negative feedback perceive a “chillier” climate.

Students were also asked to report their ideal balance of feedback. The majority of students ($53.8\%, n = 230$) rated their ideal feedback as all or mostly positive. Around 46% ($45.9\%, n = 196$) indicated their ideal feedback would be a balance between positive and negative, and only one student stated a preference for primarily negative feedback. From these values, discrepancy scores between current and ideal feedback were calculated and students were grouped into three categories: those who wanted more positive/less negative feedback ($N = 68$), those whose ideal balance was equal to their current balance of feedback ($N = 253$), and those who want more negative/less positive feedback ($N = 99$). Climate scores for these three groups were compared using a one-way ANOVA and found to significantly differ, $F(2, 417) = 26.14, p < .001$. Tukey post hoc tests revealed no difference in climate rating for students who were happy with their feedback ($M = 3.09, SD = .54$) or wanted increased negative feedback ($M = 3.03, SD = .50$). However, students who wanted more positive and less negative feedback reported weaker program climate ($M = 2.55, SD = .65$).

### Confidence in Research Skills

Students were asked to rate their confidence in a variety of research-related skills (1 = extremely poor, 5 = excellent). All confidence scores were positively correlated with program climate, including confidence in development of an independent research project ($M = 3.72, SD = .91, r = .21$), presenting at regional or national conferences ($M = 3.74, SD = 1.00, r = .20$), publishing data-driven projects ($M = 3.36, SD = 1.01, r = .28$), publishing reviews or book chapters ($M = 3.04, SD = 1.01, r = .27$), performing a critical analysis of the literature ($M = 3.76, SD = .89, r = .20$), and general research methodology and statistics skills ($M = 3.45, SD = .94, r = .22$). These results dovetail with prior research on the positive association between mentor relationship and research activities.

### Discussion

In this article, we have presented a brief measure of program climate for psychology health service provision programs, tested in a sample of clinical psychology students from scientist-practitioner programs. Despite a rich literature on the important role of climate in elementary and secondary schools (Brand et al., 2008; Cohen, 2006; Cohen et al., 2009; Rumberger, 1987) as well as organizations (Patterson et al., 2005; Rouiller & Goldstein, 1993), overall program climate has received little attention at the graduate level. The scale presented in the current study is brief, demonstrates strong internal consistency, and relates to theoretically important variables worthy of further study.
equal competence; program climate may foster confidence (or be a product of confidence) and not necessarily research ability.

Limitations

The current study has several limitations worthy of note. First, the validity data presented here are all correlational and all measured concurrently with climate. We have suggested that program climate may assist students’ confidence in the faculty for handling problems of professional competence, as well as acceptance of critical feedback, but we recognize these might be bidirectional relationships. It may be fruitful to examine program-level handling of students with professional competence issues alongside program climate. Does a concerted effort to improve program climate improve student perceptions of how faculty handle problems?

The scale measures student perceptions of climate, primarily faculty–student relationships, with some attention to peer relationships. Although working alliance data measured by students tends to correlate strongly with working alliance as measured by faculty (Schlosser & Gelso, 2005), it is unknown if faculty would rate program climate similarly to students, particularly as the scale does not assess relationships among the faculty.

We note the possibility that the pattern of results found here might constitute a halo effect. Students that are overall happier with their graduate training may perceive the faculty as more effective, evaluations as fair, and the climate as more positive. Subsequent research that compares faculty and student ratings from the same program, particularly research that utilizes analytic strategies designed to test nested data (e.g., hierarchical linear modeling), may be better able to separate program-level climate from student perceptions. That said, we believe the results are informative, even if they do represent a halo effect, as students are likely to convey their opinions of their programs to others at conferences, internship interviews, and online. It may be that student-fueled perceptions of programs (including program climate) influence application rates, acceptance rates, and so forth; these would be additional questions worthy of future investigation.

We also recognize that the sample includes only students from scientist-practitioner and clinical science programs in clinical psychology. Thus, practitioner-focused clinical psychology doctoral programs were not assessed (e.g., members of National Council of Schools and Programs of Professional Psychology), nor were programs that would also fall under the general framework of psychology health service provision (e.g., counseling, school). This is certainly a limitation of the study, as it is reasonable to predict that program climate might be quite different across different training models. Specifically, practitioner-focused clinical programs tend to have more variability in terms of enrollment, with freestanding programs admitting significantly more students than university-based programs (Norcross, Castle, Sayette, & Mayne, 2004). Practitioner-focused clinical psychology programs also tend to have higher faculty–student ratios and shorter time-to-graduation rates compared with scientist-practitioner based programs (Clark et al., 2000; McFall, 2006). Additionally, students are likely to have different relationships with faculty depending on not only the amount but also the type of contact they have; students in science-oriented programs are more likely to be involved with research activities (Cherry, Messenger, & Jacoby, 2000) and have a primary faculty mentor (Clark et al., 2000) than practitioner-focused programs. As such, subsequent studies should include a broader sample of participants across psychology health service provision training programs.

Strengths and Future Directions

Despite the limitations, we believe the measurement of program climate for professional psychology graduate programs is warranted, and the scale described here appears to demonstrate adequate psychometric properties. It is also theoretically related to several variables important to training in professional psychology. In addition, one notable exception (namely, the question about the Director of Clinical Training), the scale could easily be adapted for use in other graduate fields. However, we expect the external correlates and reasons for measuring climate may vary by discipline, as graduate programs differ in their conceptualizations of success (Gardner, 2009).

Considering the utility of program climate for elementary and secondary schools, as well as organizations, there are host of additional variables within clinical psychology training that could be explored in relation to program climate. Does program climate predict program outcomes, such as retention rates, degree completion rates, internship match rates, or Examination for Professional Practice of Psychology (EPPP) scores? Does program climate relate to recruitment of new graduate students or hiring of new faculty? Does program climate relate to confidence in achieving clinical competencies as well as research skills? Are there successful interventions for improving program climate, and do these improvements relate to issues related to problems of professional competence (e.g., legal action, student confidence in faculty) or attainment of competency benchmarks? On a more local level, programs may wish to use regular assessments of program climate to ascertain how the students feel about the program at a particular point in time.

In sum, this study has provided a quick, simple, and useful measure of graduate program climate for use in clinical psychology training programs that complements and extends work on the research training environment and advisor-advisee working alliance. We have demonstrated that program climate is associated with variables significant for training in psychology health service provision, and we encourage future research to include this measure in assessments of program-level constructs.

References


Royalty, G. M., Gelso, C. J., Mallinckrodt, B., & Garrett, K. D. (1986). The environment and the student in counseling psychology: Does the research training environment influence graduate students’ attitudes to-


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**Correction to Jacobs et al. (2011)**

In the article, “Trainees With Professional Competency Problems: Preparing Trainers for Difficult but Necessary Conversations,” by Sue Jacobs et al. (Training and Education in Professional Psychology, 2011, Vol. 5, No.3, pp. 175–184), the name of Dr. Michael Gaubatz was misspelled in the reference list and in-text citations. The online version of this article has been corrected.

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