Public Disclosure by Accredited Doctoral Programs: Prospective Applicants' Views on Clarity, Helpfulness, and Sufficiency of Information to Make Application Decisions

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Little is known about prospective applicants' perspectives on the required content (e.g., public disclosure data) of doctoral program websites in health service psychology, despite that they are one of the primary audiences of this information. Eighty-seven undergraduate students considering doctoral study in health service psychology reviewed the public disclosure data (PDD) of two hypothetical doctoral program websites. Participants rated the clarity, helpfulness, and sufficiency of the information as well as the likelihood that they would apply to the hypothetical doctoral program. Results indicated that PDD in most, but not all, areas are clear, helpful, and sufficient to undergraduate students, although they are not particularly relevant to their application decisions. In addition, the amount of information included along with required PDD influenced the clarity of some aspects of the PDD. Participants were more likely to want to apply to more selective programs in the presence of additional information, but there were no differences in likelihood of applying to less selective programs. Implications for revision of the PDD requirements as well as ways that undergraduate programs and the larger training community can facilitate prospective applicants in researching graduate programs are discussed.

Keywords: public disclosure, prospective applicants, accreditation, doctoral programs

Websites are an important, if not primary, method that prospective applicants use to self-inform about potential graduate programs in professional psychology. They need only conduct a basic Google search to find themselves bombarded with web links and advertisements for graduate programs. This process has become even more complicated as the number of graduate programs in professional psychology has soared, from 97 in 1968 to 385 in 2016 (Commission on Accreditation, 2016a), and this does not include other options such as masters programs or unaccredited doctoral programs. The ease with which prospective applicants can locate online information about graduate study has tremendous advantages—it allows them to locate, sort, and manage information quickly and conveniently, in a way that is as familiar to them as online shopping or social networking. With information being so widely available, it has become increasingly important that graduate program websites be accurate, relevant, and clearly un-

derstood by prospective applicants who are researching graduate programs.

Since 2006, the Commission on Accreditation (CoA), the accrediting body of the American Psychological Association (APA), has required that all accredited doctoral programs provide specific information about their programs in all public materials, including on their program websites. These public disclosure data (PDD) requirements, outlined in CoA's Implementing Regulation (IR) on "Disclosure of Education/Training Outcomes and Information Allowing for Informed Decision-Making to Prospective Doctoral Students," are intended to "provide potential students, current students, and the public with accurate information on the program and on program expectations . . . in a manner that allows applicants to make informed decisions about entering the program" (Commission on Accreditation, 2016b). This IR indicates what data must be presented (i.e., their students' time to graduation, program costs, internship placement outcomes, and attrition, as well as graduates' licensure rates) and how (i.e., no more than "one click away" from the program's homepage, using a standard reporting format with table templates, and labeled as "Student Admissions, Outcomes, and Other Data"). The APA recently created an online search tool that allows prospective applicants to search all accredited programs in professional psychology and compare them on the required PDD (http://apps.apa.org/accredsearch/; APA, 2016). The ability to compare programs using common metrics, often with a few clicks of a mouse, offers potential applicants an easy way to begin the process of informed decision making.

Availability of Public Disclosure Information

There are reasons to question the extent to which PDD are available to prospective applicants. Prior to implementation of CoA's PDD requirements, studies of clinical and counseling program websites found that while many programs provided some data on admissions, financial aid, and internship placement, the nature and specificity of the data varied widely, and only a small minority of programs presented data on other important areas such as attrition (Burgess, Keeley, & Blashfield, 2008; Hunter, Delgado-Romero, & Stewart, 2009). In addition, Burgess et al. (2008) found that the data were often discrepant from data provided by other sources (e.g., internship match rates as reported by the Association of Psychology Post-Doctoral and Internship Centers).

Data from our own lab indicate that even once PDD were required by CoA, programs do not always present these data in a manner that is complete, current, or helpful to prospective applicants. In what, to our knowledge, were the first direct empirical investigations of the availability of required PDD, we examined data available on websites of all accredited clinical, counseling, school, and combined doctoral programs as of July 2011 (Bell, Hausman, Quetsch, Luebbe, & Martin, 2016). Although 60%–90% of programs provided at least some required data, fewer than 25% of programs provided several required items (e.g., time to degree for students entering with bachelors' or masters' degrees, details about types of internships obtained by students). In addition, most data were current for only 40%–70% of programs and sometimes were simply incorrect (e.g., only about half of programs calculated licensure rates correctly). Data were characterized by large differences in the amount of required and supplemental information

presented, as well as presentation format (e.g., table, narrative, different orders). We reevaluated a subset (20%) of accredited program websites in 2013, one year after CoA introduced a required presentation format and table templates intended to reduce incomplete data and incorrect calculations. Interestingly, the rates of programs providing required data were comparable to 2011, with about 75%–85% of programs providing complete data across the required PDD areas and only 50%–60% providing current data. CoA's own reviews also indicate substantial room for improvement; although over 90% of programs had PDD on their websites in 2014–2015, only 16% of programs had complete data in all required PDD areas (J. Wall, personal communication, December 8, 2015).

Importance, Clarity, and Usefulness of Public Disclosure Information

Even if the required PDD data are available, questions remain about whether they are important, understandable, or useful to prospective applicants. CoA's requirements for PDD were developed by professionals in the training and accreditation communities, who may be too far removed from the application process to know what information is useful to prospective applicants and how to best present this content in a clear way. In addition, much of the published work on what information prospective applicants should attend to in selecting graduate programs is based on what faculty and training programs consider important (e.g., APA, 2011; Council of University Directors of Clinical Psychology, 2016; Kracen & Wallace, 2008; Norcross & Sayette, 2014). Because prospective applicants have historically been absent from the process of establishing or evaluating public data reporting requirements, their perspectives on the importance, clarity, and utility of PDD are largely unknown.

A handful of studies have evaluated what students find important and helpful in evaluating professional psychology graduate programs. Two studies (McIlvried, Wall, Kohout, Keys, & Goreczny, 2010; Walfish, Stenmark, Shealy, & Shealy, 1989) assessed first-year graduate students' reports of what factors were important in their graduate school decisions. Both found general issues such as emotional atmosphere, sense of fit, and research and clinical opportunities to be among the most important, although they also found support for at least moderate importance of two required PDD areas—financial support and time to degree completion. Similarly, Ponterotto et al. (1995) conducted a qualitative analysis of what African American and Hispanic American masters' students considered important when reviewing doctoral program recruitment/application materials. The major themes that emerged touched upon some of the required PDD areas (e.g., interest in financial aid information, graduation timelines). However, data from all of these studies predated requirements for PDD and so did not evaluate these requirements specifically. The studies also relied on graduate students, whose successful graduate school admission and retrospective reporting may have limited the representativeness of the sample and accuracy of findings.

The wide variation in amount and type of data presented in public materials would almost certainly make program comparisons challenging to prospective applicants. Indeed, in our own initial work (Bell et al., 2016), research assistant coders who evaluated programs' PDD rated much of the data as unclear or

only marginally clear. Data presented in tables or supplemented with additional information (e.g., about tuition waivers and other cost adjustments) tended to be rated as clearer. However, our trained coders had greater knowledge and familiarity with graduate program data than is likely the case for typical applicants. To untrained or less knowledgeable prospective applicants, more (e.g., nonrequired) information may be overwhelming instead of helpful, as in Ponterotto et al. (1995), in which "participants became frustrated if an application packet had either too little or too much information" (p. 201).

The Current Study

CoA's public data reporting requirements were designed to provide a standardized core of information to aid prospective applicants' decisions about graduate programs. Although available evidence suggests that these data are increasingly available and that at least some of the data are among the things that prospective applicants find important, questions remain about the extent to which the data are clear and helpful to prospective applicants as they make decisions about applying to graduate programs. In addition, we do not know whether specific aspects of the program or its data presentation influence how clear or helpful the data are. To address these questions, we conducted an experimental investigation of potential applicants' perceptions of "Student Admissions, Outcomes, and Other Data." Undergraduate students who expressed interest in applying to doctoral programs in health service psychology reviewed PDD from hypothetical programs that varied on amount of information presented (i.e., whether the required data were supplemented with additional information) and program selectivity (i.e., students' preadmissions characteristics, internship placement, attrition). We expected that programs providing extra information would be rated as more clear and helpful and that students would be more confident that they had sufficient information about these programs. We further hypothesized that although program selectivity would be unrelated to clarity, helpfulness, or sufficiency of the program's PDD, students would be more likely to apply to selective programs.

Method

Participants

Participants were 87 students interested in applying to graduate school in health service psychology, recruited from a large Midwestern public university. Potential participants were recruited using two methods. With the first method ($n = 67$), investigators visited three sections of an undergraduate introduction to clinical psychology course, where interested students could complete a paper-and-pencil version of the study during class time. With the second method ($n = 20$), recruitment flyers were sent to instructors of undergraduate psychology courses, research supervisors, and the department's undergraduate advising office and were posted in psychology department buildings. Interested individuals could follow a QR code or URL to an online version of the study.

With the few exceptions noted below, our sample was similar across recruiting methods. Participants included 18- to 31-year-olds ($M = 20.6$, $SD = 1.66$) who were mostly upper-level students (10.3% freshman, 18.4% sophomores, 52.9% juniors, 17.2% se-

niors, and one postbaccalaureate research assistant) and female (73.6%). Participants who completed the study during their introduction to clinical psychology course were more likely than those recruited via email or flyer to be male (31% male vs. 10% female) and upperclassmen (75% juniors/seniors vs. 60% freshmen/sophomores), χ^2s > 6.43, ps = .011 to < .001. The racial/ethnic composition of the sample did not differ across recruitment methods and included 72.4% Caucasian, 14.9% African American, 4.6% Asian/Pacific Islander, 3.4% Hispanic/Latino, and 4.6% biracial/mixed race participants. Just over half of the sample (55.9%) reported approximate yearly family incomes over $75,000 and did not differ across recruitment methods.

In terms of prior experience with the graduate school application process, 26.8% of participants had previously read application materials and 50% had talked with graduate students or faculty about graduate school, although students who participated during their introduction to clinical psychology course were less likely than those who responded to recruitment emails and flyers to have read application materials (23% of course participants vs. 40% of those responding to recruitment emails/flyers) or talked with graduate students or faculty about graduate school (80% vs. 49%), χ^2s > 9.35, ps = .002 to < .001. Most of the sample (94.3%) planned to apply to graduate school in professional psychology in the future; a few participants had previously applied (2.3%) or were in the process of applying (3.4%).

Stimuli and Measure

We developed four hypothetical doctoral program website pages as stimuli for the present study, based on the 2013 PDD IR requirements (Commission on Accreditation, 2016b), our previous experiences coding APA-accredited doctoral program websites (Bell et al., 2016), and doctoral program outcomes in professional psychology (Norcross, Ellis, & Sayette, 2010). Each page included data for time to completion, program costs, internship placements, attrition, and licensure rates, presenting using CoA's Microsoft Excel templates. Two of the four website pages included no additional information (Standard Information), whereas the other two included additional information (Extra Information). The additional information consisted of some context or interpretation of the templates (e.g., for program costs, included information on tuition waivers or guaranteed funding), as well as admissions data (e.g., class size, average Graduate Record Examination [GRE] scores and grade point average [GPA] of students), similar to the type of data recommended by the Council of University Directors of Clinical Psychology (Burgess et al., 2008).

In addition, selectivity of the hypothetical programs was manipulated in terms of areas of PDD that might impact acceptance rates. As higher GPA and GRE scores have been found to predict higher internship placement rates (Callahan, Ruggero, & Parent, 2013) and are associated with lower student attrition (Kuncel, Hezlett, & Ones, 2001), these four characteristics were manipulated. Two of the four program webpages described More Selective programs characterized by higher incoming GPAs (average 3.8) and GRE scores (average 90th/60th percentiles Verbal/Quantitative, 5.4 Analytic Writing) of accepted students, higher internship placement rates (average 97%/95% placement at any/accredited internship), and lower attrition rates (1%–2% overall). The other two program pages described Less Selective programs, with lower preadmis-

sions characteristics (GPA average 3.2; GRE score average 60th/25th percentiles Verbal/Quantitative, 4.1 Analytic Writing), lower internship placement rates (71%/37% placement at any/accredited internship), and higher attrition rates (11%–15% overall). We did not vary time to completion data or licensure rates because these do not seem to covary with program selectivity. Program costs were also not manipulated with respect to selectivity because program costs seem to depend on many factors that are beyond the scope of program selectivity (e.g., university policies, students' state residency status). Finally, program size (average of six to eight students admitted per year) did not vary across program selectivity. Hypothetical program webpages are available upon request from the corresponding author.

Participants rated the clarity and helpfulness of PDD, the sufficiency of this information, and the likelihood that they would apply based on the available PDD. Clarity ("how clearly was the information presented?") and helpfulness ("how much did the information add to your understanding of [specific aspect of program]?") of each PDD area were rated on 4-point scales (1 = *not at all clear/helpful;* 4 = *very clear/helpful*). A 4-point scale (1 = *not at all;* 4 = *a lot*) was also used to rate items on sufficiency of information ("how confident are you that you would have the information you would need to determine if you would want to apply?"), and a 5-point scale (1 = *definitely not;* 5 = *definitely*) was used to rate how likely participants were to apply to the hypothetical program ("how likely would you be to apply to this program?").

Procedure

The university institutional review board approved all study procedures. As noted above, participants engaged in one of two data collection procedures. All participants, regardless of data collection procedures, received one of four versions of a survey containing PDD information and corresponding questions about two hypothetical doctoral programs. Program selectivity was held constant within participant such that each participant viewed either two More Selective or two Less Selective programs, but the amount of information varied such that each participant viewed one program containing Standard Information and one containing Extra Information. Order of presentation of the standard and extra information was counterbalanced across participants. Thus, the survey versions included (a) selective program, standard information first; (b) selective program, extra information first; (c) less selective program, standard information first; and (d) less selective program, extra information first. All participants were instructed to review the PDD information and answer questions for the first program before moving to the second program.

Students who completed data collection during class time were provided with a description of the study at the beginning of the class period and told that they could voluntarily participate or engage in an alternative task assigned by the course instructor (e.g., read from the course textbook). Following consent procedures and completion of demographic questions, participants read a one-page handout that provided brief information about doctoral training in professional psychology (e.g., that programs vary in costs and financial assistance, that students need to apply for and complete an internship to graduate but not all students get an internship, that licensure is required for some but not all jobs) and

explained PDD requirements for accredited doctoral programs (e.g., that accredited doctoral programs are required to report on certain information in their public materials, with brief description of the types of data required). Participants then received one of four packets containing two program webpages and the questions about each program. Participants completed the study in the classroom setting at their own pace. After all participants in the class completed data collection, students received a lecture on applying to graduate school in health service psychology or could ask questions on applying to graduate school during scheduled office hours with the first two authors.

Students who responded to emails and posted flyers completed the online survey at their own pace on their own personal computers and smartphones. Following consent procedures and completion of demographic questions, participants read a one-page screen that provided the same information about doctoral training in professional psychology and accreditation requirements as in the classroom data collection procedure. Participants received one of four versions of the online survey, also containing two program webpages and the questions about each program. Following their participation, students were entered into a lottery for an Amazon gift card.

Results

Preliminary Analyses

Preliminary analyses examined whether participant characteristics or data collection methods were related to participants' ratings of program information clarity, helpfulness, sufficiency, and their likelihood of applying to the program. As noted in the Method section, participants differed by recruitment and data collection method on some demographic variables (e.g., class standing, sex, prior reading or talking with others about graduate school). However, there were no significant differences across data collection methods on any participant ratings. Thus, the two participation methods were combined for all analyses.

Correlation analyses further examined relations among participant characteristics (age, class standing, sex, racial/ethnic group, family income, and prior experience with reading graduate program materials or talking with faculty or graduate students about graduate school) and program ratings. Due to the large number of correlations, we only report those significant at $p < .01$ (a complete report of correlations is available from the corresponding author). Across all programs, the only significant correlations were between prior experience reading graduate school materials and greater clarity and helpfulness of internship information (rs = .26 and .23, ps = .001 and .003). When programs were examined separately, two significant correlations emerged; for Low Selective programs providing Extra Information, reading graduate program materials was related to internship information being rated as more helpful, $r = .48$, $p = .004$, and non-White racial/ethnic status was related to lower likelihood of applying to the program, $r = -.51$, $p = .003$.

Ratings of Program Public Disclosure Data

Table 1 presents means and standard deviations of participants' ratings of the clarity and helpfulness of each area of PDD. In

Table 1

Clarity and Helpfulness Ratings of Hypothetical Programs' Public Disclosure Data

Public disclosure area	Clarity, *M* (*SD*)	Helpfulness, *M* (*SD*)
Time to completion	3.35 (0.58)[b]	3.44 (0.71)[a]
Program costs	3.51 (0.55)[a]	3.35 (0.82)[a]
Internship	3.22 (0.71)[c]	3.18 (0.88)[b]
Attrition	3.09 (0.78)[d]	2.92 (1.00)[c]
Licensure	3.51 (0.66)[a]	3.42 (0.74)[a]

Note. Means within columns with different superscripts are statistically significant at the .05 level.

general, the PDD provided on hypothetical webpages were rated as moderately clear and helpful (*M*s = 2.9–3.5), although examination of differences across information types indicated that data on program costs and licensure were rated as most clear/helpful and attrition data were rated as least clear/helpful. Program costs and licensure data were significantly clearer than the other three information areas, and time to complete information was also significantly clearer than internship information, which was clearer than attrition information, *t*s (161–168) ≥ 2.11, *p*s = .036 to < .001, *d*s = .17–.50. Program costs, time to completion, and licensure data were significantly more helpful than internship and attrition data, and internship information was also more helpful than attrition information, *t*s (159–164) ≥ 2.56, *p*s = .011 to < .001, *d*s = .20–.50. Participants were moderately confident that they had sufficient information from PDD to make a decision about applying to that program (*M* = 2.91, *SD* = 0.77). However, based on the information provided, participants were neither likely nor unlikely to apply to these programs (*M* = 3.25 on a 5-point scale, *SD* = 0.85).

Impact of Program Information and Characteristics on Clarity and Helpfulness Ratings

We conducted a series of two-way mixed analysis of variance models (Gibbons, Hedeker, & DuToit, 2010) to examine whether the clarity and helpfulness of programs' PDD differed depending on the amount of information presented and program selectivity. Amount of Information (Standard vs. Extra Information) was a within-subjects factor and Program Selectivity (More vs. Less Selective) was a between-subjects factor; both were considered fixed effects.

Table 2 presents clarity and helpfulness ratings by Amount of Information and Program Selectivity. We found a significant Amount of Information main effect for the clarity of attrition data, $F(1, 79.45) = 4.06$, $p = .047$, $\eta_G^2 = .003$. However, contrary to our hypothesis, participants rated webpages with Standard Information on attrition as clearer than webpages with Extra Information. There were no additional significant main effects or interactions for clarity of information for time to completion, program costs, internship placement, or licensure data. There were no significant effects of Amount of Information or Program Selectivity on helpfulness of PDD information. Thus, our hypotheses that additional information would enhance clarity and helpfulness of public disclosure data were not supported.

Impact of PDD Information on Sufficiency Ratings and Likelihood of Applying

Similar two-way mixed models were used to examine participants' ratings of the extent to which the PDD were sufficient to allow participants to make a decision about applying to the hypothetical programs and participants' likelihood of applying to the program. As shown in Table 2, our hypothesis that programs with more information would be rated as providing more sufficient information on which to base application decisions was not sup-

Table 2

Ratings of Public Disclosure Data Clarity, Helpfulness, Sufficiency, and Likelihood of Applying by Program Selectivity and Amount of Information

Variable	Low selectivity, *M* (*SD*)		High selectivity, *M* (*SD*)	
	Standard information only	With extra information	Standard information only	With extra information
Public disclosure area				
Time to completion				
Clarity	3.49 (0.51)	3.36 (0.64)	3.29 (0.61)	3.30 (0.55)
Helpfulness	3.43 (0.65)	3.56 (0.71)	3.39 (0.76)	3.42 (0.71)
Program costs				
Clarity	3.41 (0.60)	3.58 (0.50)	3.51 (0.58)	3.54 (0.50)
Helpfulness	3.22 (0.85)	3.36 (0.90)	3.41 (0.81)	3.40 (0.74)
Internship				
Clarity	3.27 (0.56)	3.17 (0.74)	3.20 (0.76)	3.25 (0.75)
Helpfulness	3.08 (0.72)	3.09 (0.90)	3.18 (0.99)	3.33 (0.85)
Attrition				
Clarity	3.22 (0.75)[a]	3.09 (0.83)[b]	3.13 (0.79)[a]	2.96 (0.75)[b]
Helpfulness	3.05 (0.97)	3.03 (1.00)	2.85 (1.05)	2.79 (0.97)
Licensure				
Clarity	3.58 (0.60)	3.54 (0.66)	3.47 (0.75)	3.48 (0.62)
Helpfulness	3.47 (0.61)	3.33 (0.78)	3.36 (0.90)	3.49 (0.66)
Sufficiency of information	2.92 (0.13)	2.93 (0.13)	2.74 (0.11)	3.04 (0.11)
Likelihood of applying	3.11 (0.14)	3.16 (0.14)	3.13 (0.12)[a]	3.51 (0.12)[b]

Note. Means within rows with different superscripts are statistically significant at the .05 level.

ported. The hypothesized main effect of amount of information was not significant, nor was there a significant main effect of program selectivity or interaction between selectivity and amount of information. Also contrary to our hypothesis, participants did not report being more likely to apply to more selective programs. Rather, we found a significant main effect of Amount of Information, with participants indicating that they would be more likely to apply to programs that provided Extra Information in their PDD ($M = 3.33$, $SD = 0.09$) than those only providing Standard Information ($M = 3.12$, $SD = 0.09$), $F(1, 80.01) = 5.34$, $p = .023$, $\eta_G^2 = .01$. Weak support for our hypothesis emerged in a probe of a marginally significant interaction between Program Selectivity and Amount of Information, $F(1, 80.01) = 3.09$, $p = .083$, $\eta_G^2 = .001$. Likelihood of applying was higher for More Selective programs that provided Extra Information than those that provided only Standard Information, $F(1, 78.86) = 9.82$, $p = .002$, but there were no differences in likelihood ratings for Less Selective programs.

Discussion

Our findings represent the first attempt to empirically examine undergraduate students' perspectives on PDD on doctoral program websites and demonstrate the importance of asking undergraduate students directly about their perspectives. Although in general, participants found the information mostly clear, helpful, and relevant to their self-reported decisions about whether they would apply to a doctoral program, some areas of public disclosure were clearer or more helpful than others. In addition, there were few differences in how participants evaluated different amounts of information or information from different types of programs. These findings offer interesting, and somewhat surprising, insight into how well the profession is communicating with prospective applicants in required disclosure areas.

In general, the information participants rated as clearest and most helpful, time to completion, program costs, and licensure, tended to fit two criteria—that it was an area of established importance for potential applicants and that its presentation was simple. The helpfulness of time to completion and program cost data make sense given that these are key concerns that students have as undergraduates and have been found to be important to potential graduate school applicants (McIlvried et al., 2010; Ponterotto et al., 1995; Walfish et al., 1989). Likewise, the time to completion, program cost, and licensure data tables either provide information aggregated over time or only provide information for 1 year, which simplifies interpretation. Licensure information is essentially a numerator and denominator yielding one percentage, so understanding the numbers is straightforward. Time to completion information is much more detailed but includes the aggregated mean and median number of years to complete the program over time; focusing on the aggregation may have made it easier for our participants to digest. Similarly, the program costs table provides information on tuition and fees, with which undergraduates are quite familiar, and provides a summary number representing first-year costs.

However, it remains unclear exactly *how* undergraduate students evaluate public disclosure data; even when they rate them as clear and helpful, they may not have an accurate understanding of the information and its implications. For example, given that most

undergraduate students are responsible for their tuition (e.g., vs. having scholarships or fellowships), they may assume that graduate program costs will also be their responsibility. With the current CoA reporting requirements, programs are not required to clarify who pays tuition/fees; programs *may* but do not need to provide information on cost adjustments (e.g., tuition waivers). Further, programs are required to include the tuition per credit hour and fees for the current first-year cohort but do not need to indicate the average number of credit hours that first years take to facilitate calculating expected total costs. It is also unclear exactly how participants evaluated the information about licensure and its implications, given that most undergraduates have probably not had much exposure to the intricacies of when licensure is necessary or beneficial and the implications of different licensure rates. Future research should pursue prospective applicants' understanding of these data.

Lower clarity and helpfulness ratings for attrition and internship may reflect two issues—the novelty of these variables for many undergraduates and the level of detail presented in these areas. When reviewing PDD, prospective applicants are likely most concerned with more immediate factors, such as gaining acceptance and the experiences of first-year students, rather than distal factors such as graduate student dropout or internship placement. In addition, the current required internship and attrition tables may include too much information for applicants to digest. These conclusions are supported by our findings that prior reading about graduate programs was related to higher internship clarity and helpfulness ratings, as well as to higher helpfulness of attrition information from low selective–extra information programs. Applicants may be less interested in or able to understand some of the nuances in the data, such as the organizational affiliations or accreditation status of internships or attrition by year, than overall internship placement or graduation rates. Without understanding these tables, they likely also were unable to assess why the information would be useful for them. To our knowledge, there has been no empirical work on what aspects of internship or attrition data are most important to prospective applicants. This type of information will be important for informing further efforts to make these data most relevant to and easily understood by prospective applicants.

Contrary to our expectations but consistent with Ponterotto et al. (1995), providing more information on program websites was not necessarily superior to providing less. For most clarity and helpfulness ratings, additional information was neither harmful nor helpful. One exception to this was the clarity of the attrition information, in which more information was actually detrimental to clarity, although the magnitude of this effect was small. Anecdotally, many participants responded to the open-ended question of what was unclear about the attrition information with some variation of "what is attrition?" Lacking this semantic understanding (even with the informational primary we had provided at the beginning of the survey), additional information likely further confused students rather than clarified what attrition is, how common it is, and why students might drop out of our hypothetical programs. The only support for potential benefit of more information was a very small effect on participants' ratings of likelihood of applying to more selective programs that provided extra information, including information about successful applicants and interpretation of the program's other data. Because additional

information did not *detract from or add* to the desirability of less selective programs, all doctoral programs might consider including admissions information and contextual information to further explain their required PDD. While only a minority of doctoral programs typically provide this type of contextual information (Bell et al., 2016), including such information in a way that is straightforward and familiar to prospective applicants may help maximize the utility of programs' PDD. However, in light of our mixed findings and small effects, future research should continue to examine the impact of amount of information.

Limitations

Although our study has the distinct advantage of being the first empirical investigation of how clear and useful required PDD are to prospective applicants and of having important implications for how the profession attracts informed prospective applicants, it is not without limitations. First, our sample was drawn from undergraduate students in psychology at a single large public university. Thus, our findings may not be representative of prospective doctoral students from other institutions such as smaller colleges, other regions of the country, applicants not coming directly from undergraduate education, or applicants coming from outside of psychology. Further, as is typical of experimental designs, our study may not reflect real-world experiences of prospective applicants in several ways. While we developed the study stimuli to be as realistic as possible, they were in fact *hypothetical* program webpages specific to PDD. Applicants only viewed two hypothetical programs, whereas in reality, they typically compare more than just two programs. We also asked participants whether they would apply to graduate programs based on the given hypothetical PDD, without the benefit of other factors that were beyond the scope of the present study, such as clinical training, theoretical orientation, and faculty research interests (McIlvried et al., 2010). Finally, even for significant findings, effect sizes were small, suggesting that PDD may play only a modest role, at best, in students' understanding and evaluation of doctoral programs. Future research would benefit from a focus on actual doctoral program websites, larger and more heterogeneous samples, and more naturalistic evaluation of how prospective applications make decisions in the real world and in real time. Additionally, in light of our small effects, research should continue to examine what data are most meaningful to consumers. For example, credentials of successful applicants, student debt loads, and graduates' employment may be more meaningful than our current PDD.

Implications for Training

The present study suggests that as a field, we may be overestimating the relevance, clarity, and helpfulness of PDD. Assuming that a primary purpose of PDD is to help inform potential applicants, several changes are needed to better achieve this purpose. Ideally, these changes will involve integrated, collaborative efforts by the accreditation system, the training community, and individual training programs.

Because PDD is required by the APA CoA, we believe this body bears primary responsibility for increasing the relevance, clarity, and utility of PDD for prospective applicants. First, although Bell et al. (2016) suggest that the table templates were useful in facilitating programs' presentation of complete data, the current study suggests several revisions to the templates. For example, tables should be named with the critical information (e.g., Graduation Rates or Student Dropout rather than Attrition) and begin with or highlight the main message of the table to aid in interpretation. "Bottom-line" summary information, such as the aggregated time to completion rates (mean and median), out-of-pocket costs to students, internship match rates, graduation rates, and licensure rate aggregated over the reporting period, should be clearly displayed. These data could then be followed by the more nuanced information that is presently required. Second, it is critical that revised PDD requirements be developed and piloted with potential applicants. The current method of crafting requirements, even with public input, almost guarantees that the product will be meaningful to administrators, trainers, and perhaps even current doctoral trainees but that the voices of actual prospective applicants will be virtually silent. Working more closely with those involved in undergraduate education, as well as with diverse groups of undergraduates and other prospective applicants themselves, may yield novel and surprising information about what this audience wants and needs. Finally, CoA is in an ideal position to help prospective applicants learn how to evaluate PDD. By developing straightforward and understandable language that becomes part of required templates (again, with appropriate input from the intended audience), CoA can ensure that all programs provide a foundation for understanding their PDD. Placing an informational document on a CoA webpage alongside the new program search tool would also greatly enhance the likelihood that prospective applicants who review programs' PDD also find this relevant explanatory material. Explanation of what information is required of accredited programs, what terms such as *attrition* mean (e.g., student dropout), and why different outcomes may matter to students would all be useful to prospective applicants. The health service psychology training community can also facilitate effective use of PDD. As part of the information included in many existing publications on how to select graduate programs (e.g., APA, 2011; Council of University Directors of Clinical Psychology, 2016; Kracen & Wallace, 2008; Norcross & Sayette, 2014), specific details on how to interpret and compare PDD would be helpful to undergraduate students. Training councils could develop materials that help students understand their programs' PDD, particularly in the context of that training council's mission and training goals. The training community can also be instrumental in continuing to conduct the research that will both guide and evaluate the effectiveness of the PDD provided to prospective applicants and the training available to prospective applicants as they seek to evaluate PDD.

Finally, individual training programs, given their opportunities for close contact with prospective applicants, are urged to take an active role in making PDD useful to prospective students. Certainly, they should evaluate their websites from a prospective applicant's perspective and consider ways to make their sites more user-friendly. Offering education within their departments (e.g., in undergraduate courses, at Psi Chi or Psychology Club meetings) can also better prepare prospective applicants to evaluate graduate programs. Such education could include information on how to interpret and understand PDD so that the students most likely to apply to graduate school will be able to independently inform themselves when applying.

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