Public Disclosure by Accredited Doctoral Programs I: Completeness, Currency, and Utility

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Abstract

To demystify the graduate school application process and increase "consumer awareness" in potential graduate students, the American Psychological Association's (APA) Commission on Accreditation developed Implementing Regulation C-20 (IR C-20): Disclosure of Education/Training Outcomes and Information Allowing for Informed Decision-Making to Prospective Doctoral Students. IR C-20 specifies that all APA-accredited programs must disclose information about time to program completion, program costs, internship placement rates, attrition, and licensure attainment. In two studies, we examined programs' disclosure of the required data and the clarity with which this was done. In study 1, we completed an exhaustive review of the websites of APA-accredited clinical PhD and PsyD, counseling, and school psychology programs. Overall, programs were in general compliance with the required public disclosure data but failed to provide current data at a comparable rate. In addition, there was great disparity regarding the clarity of data presentation. Following a revision to IR C-20 that required table templates, we randomly selected a subset (20%) of accredited programs and reexamined compliance. Results indicate that compliance was consistently higher following this revision. We suggest steps that programs may take to increase compliance with IR C-20, as well as ways to improve the clarity of data disclosure, in order to maximize consumer awareness.

Keywords: public disclosure, accreditation, doctoral programs

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Facilitating an appropriate match between doctoral programs and their applicants is a complex process challenging to both parties involved. For applicants, the process is often mystifying and intimidating as they try to identify their training goals and find programs willing to support them to reach these goals. For doctoral programs, the challenge is in attracting and recruiting students who match well with departmental interests, will succeed in their doctoral studies, and will become alumni who contribute actively to the profession. Recently, this process has become even more complicated as the number of doctoral programs in professional psychology has soared, with accredited program numbers swelling from 97 in 1968 to 385 in 2014 (Commission on Accreditation, 2014a). Helping potential graduate applicants become more informed consumers has been the subject of numerous books and articles (e.g., American Psychological Association, 2007, 2011; Kracen & Wallace, 2008; Norcross & Sayette, 2014), as well as public disclosure efforts by doctoral programs. Indeed, public disclosure of specific data is now required of all programs accredited by the American Psychological Association's Commission on Accreditation (APA CoA; Commission on Accreditation, 2014b). The current paper presents two studies that examined programs' required public disclosure data. Understanding whether programs provide complete and up-to-date information, what additional information they present, and the utility of such information is an important step in determining the extent to which the profession is meeting its goal of informing potential consumers of graduate education.

Helping Applicants Become Informed Consumers of Doctoral Training Programs

As noted above, there are a plethora of resources and publications available to aid those interested in the graduate school application process. Many publications recommend that

applicants evaluate programs on components such as admissions information (admissions requirements, acceptance rates), degree requirements (courses, research, practicum), financial information (costs, assistance, debt load), and outcomes (completion/attrition rates and graduates' time to degree, internship placement, jobs, licensure). These characteristics differ across programs and tend to be reported by both programs and students as important in the application and admissions process (Mayne, Norcross, & Sayette, 1994; McIlvried, Wall, Kohout, Keys, & Goreczny, 2010; Norcross, Kohout & Wicherski, 2005; Norcross, Sayette, Mayne, Karg, & Turkson, 1998; Walfish, Stenmark, Shealy, & Shealy, 1989). Until recently, however, little standardization in programs' presentation of this information existed. For example, some programs provided information about financial aid, but not tuition and fees, while other programs would omit financial aid information. Furthermore, a variety of methods were used to present information like GPAs and GRE scores of successful applications, and financial support amounts (i.e., averages vs. ranges vs. percentages of students; Burgess, Keeley, & Blashfield, 2008; Hunter, Delgado-Romera, & Stewart, 2009). The diversity of presentation styles makes it challenging for applicants to draw meaningful comparisons across programs. These disparities are especially troubling when staggering discrepancies are present in program acceptance rates, resources, and success rates. For example, various reports have indicated acceptance rates that range from 7% to 50%, debt loads that range from less than $10,000 to more than $180,000, the probability of tuition waivers or assistantships ranging from 1% to 89%, and rates of placement at accredited internships that range from less than 25% to 100% (Association of Psychology Postdoctoral and Internship Centers, 2014; Michalski, Kohout, Wicherski, & Hart, 2011; Norcross, Ellis, & Sayette, 2010). Similarly, time spent in the graduate program, likelihood of graduating, job placement, and alumni licensure rates all vary, sometimes

dramatically.

The Need for Standardized, Publicly Available Program Information

With the proliferation of doctoral programs with different demographics, requirements, and outcomes, the need for standardized metrics to allow for program comparison became increasingly apparent. To address this need, in 1998, a group of one-hundred-plus scientist-practitioner programs in clinical psychology, the Council of University Directors of Clinical Psychology (CUDCP), developed a resolution to support voluntary "fuller disclosure" among its member programs. This resolution affirmed the responsibility of doctoral programs to provide key information to the public on admissions (requirements, data on recent applicants), the program (program costs and length, attrition, time to degree), and program outcomes (internship and job placement, licensure rates). Unfortunately, Burgess et al. (2008) found that implementation of these voluntary disclosure guidelines was incomplete. Burgess and colleagues determined that during 2004-2005, approximately three-quarters of CUDCP member programs provided fuller disclosure information, but only about 20% of programs provided complete data. They further found that self-reported fuller disclosure data were often discrepant from data provided by other sources (e.g., internship match rates as reported by APPIC). An examination of counseling program websites in 2006 similarly indicated that although most 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 (Hunter et al., 2009).

Several years after CUDCP's introduction of voluntary public disclosure guidelines, the profession's primary accrediting body, the APA CoA followed a similar path, developing *Implementing Regulation C-20 (IR C-20): Disclosure of Education/Training Outcomes and*

Information Allowing for Informed Decision-Making to Prospective Doctoral Students. Although the IR has undergone several revisions since its 2006 implementation, IR C-20 has addressed the growing call for public disclosure data, by specifying how doctoral programs must meet the accreditation requirement to "*provide potential students, current students, and the public with accurate information on the program and on program expectations… using the most up-to-date data on education and training outcomes, and be presented in a manner that allows applicants to make informed decisions about entering the program*" (Commission on Accreditation, 2014b). In an attempt to rectify inconsistencies in what and how programs provided such data, the most recent revision in 2012 provided table templates in which the data must be presented. According to the IR, specific information that programs must provide to the public include information on time to program completion, program costs, internship placement, attrition, and licensure attainment. Further, the IR specifies how the data should be labeled and where it should be located on program websites.

Standardized content and format offer several advantages to the public and the profession. First, standardization of public disclosure information helps to mitigate the inability to compare programs on similar data. Similarly, specifying which data are required helps to educate consumers about factors the profession considers important in evaluating doctoral education options. In addition, the ability to compare programs using common metrics dovetails well with our society's increasing expectation of "data at our fingertips" and the ability to compare multiple products, side-by-side, often with a few clicks of a mouse. The ability to do the same with graduate programs offers potential applicants an easy way to begin the process of informed decision-making. Standardized publicly available program data also facilitate the ongoing evaluation and evolution of the profession. For example, IR C-20 data have the potential

to a rich resource for published articles on topics such as program characteristics and outcomes (e.g., Callahan, Ruggero, & Parent, 2013; Hunter, Delgado-Romero, & Stewart, 2009). These data can help illustrate patterns within programs over time as well as trends within the profession, including those that indicate where the profession is doing well and those that reflect challenges or areas for improvement in the field (e.g., the internship imbalance). However, the utility of these data rely on their quality, which to our knowledge has not yet been established.

The Current Studies

As a first step in evaluating the quality of public data on doctoral programs in professional psychology, the present studies aimed to describe and evaluate the current status of public disclosure by accredited doctoral programs. To our knowledge, these studies represent the first empirical examination of public disclosure data since implementation of the IR C-20 requirements. In Study 1, we examined IR C-20 data available on websites of all accredited clinical, counseling, school, and combined doctoral programs. First, we evaluated consistency with IR C-20 requirements with regard to presence and currency of required data, and the format used to present data. Further, we examined supplemental information that programs provided, including additional information, interpretation/contextualization of required information, and helpfulness of any interpretation. Finally, we evaluated the clarity of programs' information, generally and with regard to format and any supplemental information provided.

In Study 2, we investigated the presence and currency of required data following the most recent revisions to IR C-20. Specifically, Study 1 data were collected in 2011, when the content of the required information was largely the same as current requirements, but when presentation format was less articulated. IR C-20 was revised in September 2012 to include required table templates for all data. We conducted follow-up examinations of a subsample of programs to

assess presence and currency of required information following this change.

In both studies, we also examined differences in compliance and currency by program type. We hypothesized that the variability in program information found in prior studies might reflect what different types of programs consider most relevant and that this variability might not be fully erased by the IR C-20 requirements. For example, we anticipated that CUDCP-member clinical programs would include information specified in their voluntary "fuller disclosure" guidelines. We also expected that programs that use different internship placement mechanisms would provide more complete and current data on those sorts of internships (e.g., APPIC internships; internships conforming to Council of Directors of School Psychology Programs, or CDSPP, criteria; non-accredited member-organization internships) than would programs that tend not to use those mechanisms. Finally, we expected that programs with lower program costs or more financial assistance would provide more detailed cost data.

Study 1: Program Consistency with Public Disclosure Requirements

Method

Participants

Data were collected from the websites of APA-accredited doctoral programs in professional psychology. A list of accredited doctoral programs as of July 2011 and their corresponding web addresses were generated from APA's website. Graduate programs without websites, with websites that were not clearly linked to one program, or inactive programs were not included in the study. We evaluated 366 program websites, including 232 clinical psychology programs (170 clinical PhD, 62 clinical PsyD programs), 67 counseling psychology programs, 59 school psychology programs, and 8 combined programs[1].

[1] The clinical PhD and PsyD programs from Biola University were excluded from analyses because we could not distinguish between the PhD and PsyD program websites. University of Virgina's combined clinical-

Procedures and Measure

Primary study procedures involved locating program websites, capturing screenshot images of web pages relevant to information required by APA Commission on Accreditation's IR C-20, and coding several aspects of these web pages. Two undergraduate research assistants planning to apply to doctoral programs in psychology served as coders. As future applicants to graduate programs, these undergraduates were well suited to evaluate graduate program websites.

Research assistants located program websites using the web addresses indicated on APA's website. Program websites that could not be located using this procedure were then accessed using a web search. Due to increased reliance on technology and the Internet for basic information, this process paralleled the retrieval method most prevalent among potential doctoral students searching for graduate program characteristics.

After locating each website, screenshots of the program web pages relevant to APA's IR C-20 were made. All screenshots were taken during July and August, 2011. Research assistants then coded the screenshots of the program web pages using the *Public Disclosure Coding System (PDCS)* developed for the present study. The PDCS was based on the 2011 version of the APA Commission on Accreditation's IR C-20 Regulations, the CUDCP Fuller Disclosure guidelines, and information the researchers believed to be important to consumers of graduate program websites (i.e., applicants; a copy of the PDCS is available from the first author). Using the PDCS, coders first recorded basic program characteristics, including program type (clinical, counseling, school, combined), degree type (PhD, PsyD), and website url. Next, coders indicated where the program presented its C-20 information (e.g., whether it was within one click of the

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school psychology program in the Curry School of Education was included on APA list of accredited clinical programs, but was coded as a combined program in the present study.

program's main page) and how it was labeled (e.g., required *Student Admissions, Outcomes, and Other Data* label or other label). Third, coders recorded information relevant to each area of data required by IR C-20, including time to degree, program costs, internship placement, attrition, and licensure rates of graduates. Specifically, coders indicated (1) whether specific aspects of the data in each area were present and current (as of the prior October, as required by APA); (2) presentation format (tables, narrative, or both; presented separately per cohort or aggregated); (3) clarity of the information (*1* = Not at all clear, to *4* = Very clear); (4) whether the program included additional information that contextualized or explained the required information; and (5) the helpfulness of any interpretation of the information (*1*= Not at all, to *4* = A lot).

All program screenshots were coded independently by the two research assistants. On items requiring categorization (e.g., presence, up-to-date, format, interpretation), disagreements between coders occurred on 17% of items. These were resolved by discussion and consensus among coders and authors. For rated items (clarity, helpfulness), percent agreement ranged from 79.45% to 97.97% and the mean of the two coders' ratings was used.

Results

Our results address the content and presentation of public disclosure data required for all accredited psychology programs. We examined the data aggregated across all accredited programs as well as separately by program type (clinical PhD, clinical PsyD, counseling, school; combined programs were excluded from analyses comparing across program type due to small sample size). Differences in compliance (presence, currency), clarity, and helpfulness by program type or data format were examined using chi-square analyses; these are presented in the text only when significant. Due to the large number of analyses, only findings significant at the .01 level are presented.

Compliance with C-20 Requirements: Data Presence and Currency

Table 1 displays the percentages of programs whose required information was present and was current, overall and by program type.

Data location and label. Overall, programs were in strong compliance (88%) with the requirement that C-20 data be one click away from the program's main web page. Substantially fewer programs, 61%, used the required label for their data. Other common labels included references to student outcomes, data, or statistics (18%), APA, CoA, public disclosure, or C-20 data (10%), or other labels such as applicant information, student profiles, or information (10%).

Time to completion. Almost all programs provided mean and median time to completion data (96% and 90%, respectively), although only about half of programs' data were current (55% and 51%, respectively). Compliance rates were slightly lower for presentation of more detailed time to completion data; at least three-quarters of programs displayed percentages of students who took from fewer than five to more than seven years to complete the program (77% - 83%), but substantially fewer programs (42% - 46%) provided current data. As noted in Table 1, presentation of five and six year completion data varied by program type (X^2s $\geq$ 13.09, *ps* < .01), with school psychology programs being less likely than other program types to present these data. Fewer than half of programs provided separate data for students entering with bachelors and master's degrees, and these data were current for fewer than one-quarter of programs.

Program costs. Most programs provided required information on tuition and required fees/costs (78% and 69%, respectively), although this information was current for fewer than half of programs (50% and 43%, respectively).

The IR C-20 regulation indicated that programs *may* provide information on cost adjustments such as financial aid, grants, loans, tuition remission, assistantships, and fellowships.

The majority of programs provided information on cost adjustments (73%), as well as the proportion of costs covered by the program or department (64%) and the proportion of students who get their costs covered (64%). As Table 1 indicates, there were significant differences across program type in the presentation of cost adjustments, proportion of costs covered, and proportion of students getting costs covered, X^2s $\geq$ 44.08, *ps* < .001, with clinical PsyD programs being least likely and clinical PhD programs most likely to present these data. More than half of programs (60%) indicated who pays tuition (student, university, or both) and 26% of programs provided the average out-of-pocket cost to students. Programs differed in presentation of who pays tuition, $X^2 = 37.09$, $p < .001$, and in average out-of-pocket costs, $X^2 = 40.67$, $p < .001$. Clinical PhD programs were more likely to present average out-of-pocket costs than all other program types and indicate who pays tuition than clinical PsyD and counseling psychology programs.

Internship placement. Most programs (55% - 89%) provided required data on students' internship placements. Averaged across all required data (e.g., placement in different types of internships), more programs presented number data (81%) versus percentage data (67%). Although the percentage of programs presenting this information averaged 74%, those providing current data was markedly lower (60%). As noted in Table 1, there were significant differences by program type in presenting the number of students who sought internships, $X^2 = 24.71$, $p < .001$; percent who obtained internships, $X^2 = 12.57$, $p < .01$; number who obtained paid internships, $X^2 = 12.02$, $p < .01$; number and percent who obtained non-accredited APPIC internships, X^2s $\geq$ 65.08, *ps* < .001; percent who obtained accredited APA internships, $X^2 = 17.39$, $p < .01$; and data separated by cohort**,** $X^2 = 16.76$, $p < .01$. Although specific findings were mixed, in general school psychology programs were less likely to present detailed data and clinical PsyD programs were more likely to present detailed data.

Programs are also instructed to report, when applicable, the number and percent of students obtaining internships at non-accredited sites that were members of organizations other than APPIC, that conformed to Council of Directors of School Psychology Program (CDSPP) guidelines, or that were half-time placements. As Table 1 notes, just over half of programs reported the number of students who obtained two-year half-time internships and only a few programs reported on CDSPP or other internship types. Again, fewer programs provided percentage data or current data. As indicated in Table 1, clinical PsyD programs were more likely than all other program types to include information on non-accredited "other organization" internships X^2s $\geq$ 44.37, *p*s< .001, and school psychology programs were more likely than all other program types to include information on CDSPP internships, X^2s $\geq$ 128.10, *p*s < .001.

Attrition. The large majority of programs presented all required attrition data in the required table format (81%), with somewhat fewer programs presenting current information (71%). Compliance in presenting the required attrition table varied by program type, $X^2 = 13.13$, $p < .01$, with clinical PsyD programs most likely to present the correct table.

Licensure. Most programs provided the number of graduates during the 8-year period (2-10 years ago) and number and percent of graduates who became licensed (76-86%). Despite the lenient requirement to update this information every three years, just over half of programs (54%) included current data. Percentage calculations were correct for only about half of programs, despite detailed instructions. Presentation of the correct licensure percentage varied by program type, $X^2 = 16.04$, $p < .01$, with clinical PsyD programs more likely to present the correct percentage.

Format of Required C-20 Data

Although IR C-20, as it stood in 2011, indicated what data programs must present (with

the exception of attrition data), the IR C-20 did not indicate a required format for data presentation. For each area of data without a required format, we examined the rates with which programs presented data in two formats – in tables (with or without accompanying narrative) or in narrative only. We also examined whether compliance (data present and current) differed as a function of presentation format, expecting better compliance when tables were provided; Table 2 includes the percentages of data presence and currency rates based on the format used.

For time to completion data, most programs (79%) used a table, either exclusively or with accompanying narrative, to present required data, whereas 21% used only narrative. Programs using a table were more likely than programs using narrative only to present current mean and median time to completion, and to present current time to completion information separately for master's and bachelors' degrees, X^2s $\geq$ 8.81, ps < .01. Format of program cost data was equally split, with 50% of programs presenting costs in a table and 50% using narrative only. There was greater compliance in presenting tuition data for the first year cohort among programs using a table compared to those including only a narrative, $X^2 = 6.84$, $p < .01$.

The vast majority of programs used tables to present internship information (92%), with only a small minority (8%) using narrative exclusively. When there was a table, programs were more likely to present the number of students who applied for internship, $X^2 = 32.64$, $p < .001$, and the number who obtained paid internships, $X^2 = 9.53$, $p < .01$. Importantly, programs were more likely to present current internship data, except for non-member organization internships and CDSPP internships, when they included a table, X^2s $\geq$ 10.47, ps < .01.

More than half of programs (61%) utilized a narrative for presenting licensure data and 39% included a table. Unlike other types of data, there were no significant differences in programs' compliance with presenting current and complete licensure data based on format.

Clarity of C-20 Data

Because the clarity of information presented to the public is as important, if not more so, than whether and how the data are presented, we examined the mean clarity ratings of required C-20 data, and investigated hypothesized differences in clarity by data presentation format. As Table 3 indicates, mean ratings suggest that the clarity of C-20 data ranged widely. Data were close to *very clear* for attrition, *mostly clear* for time to completion, and *mostly unclear* for program costs, whereas internship placement and licensure data were neither clear nor unclear.

We hypothesized that data would be clearer when identified by the required label and when presented in table format. As hypothesized, our coders rated programs using the required label as more clear (M=3.19, SD = 0.70) than programs not using the required label (M= 2.49, SD = 0.84), $F(1, 362) = 74.82$, $p < .001$. In contrast, our hypothesis that table format would be rated as more clear was supported only for internship data, $F(1, 352) = 15.08$, $p < .001$. Internship data presented in a table, with or without accompanying narrative (M = 2.57, SD = 1.06) were rated as more clear than data presented only in narrative form (M = 1.76, SD = 0.82).

We also hypothesized that programs providing additional, non-required information for program costs would receive higher clarity ratings. This hypothesis was supported in that program costs information was rated as more clear for programs presenting costs adjustments, proportion of costs covered, proportion of students getting costs covered, and average out-of-pocket costs to students, $Fs(1, 325) \geq 68.01$, ps < .001.

Contextualization of C-20 Data

Table 3 displays the percent of programs that provided context for required data, and the mean helpfulness ratings of this contextual information. Fewer than a quarter of programs contextualized their time to completion and program costs data (17-21%), although a larger

proportion of programs contextualized their internship, attrition, and licensure data (30-44%). Typical contextual information included statements about specific reasons for internship placement (e.g., students accepting internships outside of match or not matching and waiting a year), attrition (e.g., personal or health reasons), and licensure (e.g., jobs or career paths not requiring licensure). There were significant differences by program type in contextualizing data on program costs and internship, X^2s $\geq$ 20.74, *ps* < .001. In particular, clinical PsyD programs were more likely to contextualize program costs (39%) than counseling and school psychology programs (3-6%) and more likely to contextualize internship data (53%) than clinical PhD and counseling psychology programs (20-25%). Clinical PhD programs were also more likely than counseling psychology programs to contextualize cost data (21% vs. 3%).

When contextual information was included, our coders considered this to be neither helpful nor unhelpful. A different pattern of findings emerged for clarity. Programs that interpreted or contextualized their internship data, $F(1, 352) = 22.00$, $p < .001$, and licensure data, $F(1, 334) = 10.32$, $p < .01$, received higher clarity ratings (*M*s = 2.91; *SD*s = 1.06-1.07) than those that did not (*M*s = 2.34-2.52; *SD*s = 1.03-1.14).

Study 2: Public Disclosure with Required Templates

Although programs in Study 1 were generally in compliance with the requirement to provide data in specified areas, there was a fair amount of variability in data presentation (e.g., tables, text), and therefore many opportunities for errors (e.g., in calculations), missing data, or data that were hard to interpret (e.g., whether unreported data were meant to indicate zero values or items that were not applicable to a program). Fortuitously, recent changes to IR C-20 have made it less likely that such variability and data errors will continue. Thus, in Study 2, we re-evaluated a subset of accredited programs to analyze compliance and currency of required public

disclosure data following the most recent IR C-20 revision.

Method

Follow-up coding was conducted for a randomly selected subset (20%) of accredited programs of each type. Data were again collected from program websites, excluding inactive programs and programs without websites. The resulting sample included 46 clinical (34 clinical PhD and 12 clinical PsyD programs), 13 counseling, 12 school, and 2 combined programs.

Using similar procedures to Study 1, undergraduate research assistants located program websites and captured screenshots of the IR C-20 data during October and November 2013. Program data were then coded by the first three authors using a revised version of the PDCS, updated to focus on the 2012 changes to IR C-20 Regulations. The revised form focused on programs' presentation of C-20 data using required table templates, data currency, and program presentation of non-required information (e.g., information to be presented if applicable, optional program costs information). The PDCS-R did not code the location and label for IR C-20 data because these requirements did not change substantially in 2013. Because coders for this study were qualitatively different from Study 1 (faculty and graduate students vs. undergraduate students), ratings that involved coder perceptions -- clarity and helpfulness -- were not examined. To estimate coding reliability, 20% of programs were evaluated by a secondary coder. Agreement between coders ranged from k = 0.76-1.00 for compliance in presenting required tables, and k = 0.60-1.00 for non-required information.

Results

Results address programs' compliance with revised C-20 data requirements, including presence of data using required table templates and currency of data, as well as presentation of non-required information. Table 4 presents percentages of programs using the required table

templates and whose data were current in each required C-20 area, overall, and by program type.

Program compliance. As Table 4 indicates, more than three-quarters (76% - 84%) of programs presented C-20 data in the required tables for time to completion, program costs, internship placement, attrition, and licensure. These rates were consistently higher (from just over 50% to almost 100%) than the wide range of programs providing required data in Study 1. As in Study 1, Study 2 programs were generally less compliant with presenting current information. Table 4 shows that for time to completion, program costs, internship placement, and licensure, about half of programs (50% to 54.8%) presented current data. For attrition, over 60% of programs presented current data. These compliance rates are less variable, but not generally higher, than the rates of programs presenting current data (42% - 71%) in Study 1.

Other information. Specific requirements for time to completion and internship placement data were clarified in the 2012 revisions to IR C-20. For time to completion, rather than requiring that programs present data separately for bachelors and master's degrees (if applicable), the revised C-20 template includes a text box for programs to describe policies regarding students' prior graduate credit. In Study 2, half of programs (52%) presented information on such policies compared to the 42% of programs in Study 1 that presented data on bachelor's and master's students. Nearly half of Study 2 programs indicated that this information was not applicable. For internship placements, the IR C-20 revision clarified that programs must present data on student placement at all types of internships (e.g., non-accredited non-APPIC or CDSPP internships, half-time internships), with zeros entered in the required tables for any categories that are not applicable. The percentages of Study 2 programs that presented these data in the internship tables (over 75%) were substantially higher than the comparable percentages in Study 1 (ranging from 12% to 60%).

Program costs continued to be a common area where additional non-required information was presented. Fewer than half of programs included additional information on program costs, including the proportion of costs covered (42%), the proportion of students getting costs covered (45%), and who was responsible for paying tuition (44%). These percentages were somewhat lower than those in Study 1.

Discussion

The present studies described and evaluated the current status of public disclosure by accredited doctoral programs as stipulated by IR C-20. Study 1 was an exhaustive review of disclosure data on the websites of all accredited clinical, counseling, school, and combined doctoral programs during the year 2011, whereas Study 2 examined a subsample of programs' websites in 2013 to evaluate presence and currency of required data following the most recent revisions to IR C-20. We evaluated the extent to which data were available, current, formatted correctly (especially with regard to the tabular format specified by the 2013 revision of IR C-20), clear to the reader, and contextualized where appropriate. Additionally, when relevant, we compared these attributes across clinical PhD and PsyD, counseling, and school psychology programs. Overall, programs were in general compliance with the required public disclosure data, but failed to provide current data or more nuanced information (e.g. percentages, and numbers) at a comparable rate. C-20 data were largely clear to our coders and clarity was enhanced by contextual information and the use of a table.

Compared to previous research examining similar program website characteristics in the mid-2000s (Burgess et al., 2008; Hunter, 2009), the current studies found notable improvements in doctoral program reporting, information provided, and ease of data retrieval over that past ten years. All programs provided most of the required information and the majority of programs

(88%) provided such data within one mouse click from their homepage (although these were presented with varying degrees of accuracy or currency). This speaks volumes to the power of IR C-20, which requires such data be readily available to the public. In theory, this standardization of data presentation across programs should assist potential applicants, the profession, and the general public in making congruent comparisons about key characteristics of doctoral programs in professional psychology. Moreover, cross-program comparisons are now feasible and easily conducted with a new search tool on APA's Accreditation website that allows consumers to search for programs, conduct side-by-side comparisons of basic program information, and review programs' IR C-20 data directly from the search tool (American Psychological Association, 2014). Future research should examine if the presence of such data aids in the process of applicants' program comparisons or the profession's self-evaluation.

Despite such uniformity in the *presence* of data, both of our studies indicated that data for many programs were not up-to-date. The lack of current data was most pronounced in the areas of time to completion and licensure of graduates, with only just over half of the sample in both 2011 and 2013 having current data in these domains. One potential explanation for this delay in data updates may have to do with the time-course of degree attainment (e.g., frequently this may occur many months after the student has completed an internship for which he or she was off-campus) or the increased difficulty of obtaining accurate licensure data from alumni scattered across the globe. Both of these domains may reflect an "out of sight, out of mind" problem, whereby data are not readily obtained and subsequently posted. Still, these areas are often some of the most salient for potential applicants trying to understand the long-term outcomes of a given program. Our data suggest that potential applicants or the public may be looking at somewhat outdated information on many programs' websites.

Generally speaking, when there were differences in compliance based on program type, they favored clinical, and often PsyD, programs. We speculate that the reasons for this may include the history of public disclosure among CUDCP-member clinical (largely PhD) programs, and the highly popular and competitive nature of clinical programs that requires effective public advertising materials. School programs, on the other hand, were less likely to provide required detail in time to degree and internship placement; a notable exception was that school programs were more compliant with reporting internships that conformed to CDSPP guidelines. We believe these findings reflect differences in the sorts of information that school programs find important, such as internships that are geared specifically to their students.

One notable difference within clinical PhD and PsyD programs was the proportion that provided additional information regarding cost adjustments, such as financial aid, grants, loans, tuition remission, assistantships, and fellowships. Interestingly, this information is not *required* by IR C-20, but recommended. Overall, our results suggested that information that was not required was not usually included on program websites, despite the fact that our data also suggested that including such information improved clarity. Our results further indicated that clinical PhD programs were more likely than expected to provide this information, likely consistent with the CUDCP "fuller disclosure" guidelines. On the other hand, clinical PsyD programs were less likely to provide this information, perhaps because these cost adjustments were less typical in these programs. Consistent with the importance of education costs to students, the 2012 revision to the IR C-20 requires public disclosure of more specific program costs for the first-year cohort (e.g., in-state and out-of-state tuition, university/institution fees or costs, additional estimated fees or costs such as books and travel).

With regard to clarity of the information presented, our data speak to two main questions.

First, does having additional information (usually in the form of narrative text) help to contextualize and clarify the quantitative data? And second, does the format of information aid in clarity? Although our coders did not explicitly report that additional narratives to explain numerical data were helpful, these websites were rated significantly clearer overall than websites without such contextualization in several domains. These areas included program costs, internship attainment, and licensure. We infer that providing a richer understanding of the data to the consumer implicitly makes the numbers clearer.

Our results also support the importance of presentation format for information clarity. First, our data suggested that using the required labels improved clarity for the consumer. Second, our Study 1 data suggested that using tables was associated with both greater compliance and clarity for the consumer. Potentially in light of these putative benefits (i.e., increased compliance and standardization, ease of consumption), the most recent IR C-20 revision requires the use of Microsoft Excel table templates for all information. Our data support the utility of such templates for graduate programs' compliance with reporting requirements and enhanced clarity of information for consumers. For example, our Study 1 coders found that when programs omitted certain information (e.g., additional program costs, half-time internships, data for students entering with master's degree), it was unclear if these omissions represented "not applicable" or values of zero. The required tables, which explicitly state what information is required and what data to enter in each cell (e.g., numbers or dollar amounts, including zeros vs. "not applicable" or leaving blank), help resolve this issue. In addition, because the templates automatically calculate totals and percentages, the sorts of calculation errors we found for several programs (e.g., percentage of alumni licensed) can be avoided.

Our findings also suggest caution, however, about possible unintended consequences of

requiring tables. In Study 1, we found that contextualizing findings aided in clarity, but also programs that were likely to use tables (when it was optional to do so) were less likely to contextualize the data. Now that CoA stipulates the use of tables, graduate programs may assume that these numbers stand on their own without additional explanation. Anecdotally, shortly after the table templates became available, the first author noted discussions among CUDCP programs that suggested that many programs had, either inadvertently or intentionally, limited their public disclosure data to that required by APA, to the exclusion of additional data encouraged by CUDCP. Our findings suggest that graduate programs would be prudent to think about APA requirements as the minimum data relevant across all programs, and to consider what other data can help characterize their program. In particular, they may wish to contextualize or explain their licensure and internship data since prospective students and the larger public may be less familiar with these aspects of graduate training.

Limitations

While the present studies are unique and offer important insights into the state of public disclosure data in our field, they were not without limitations. Coders from both studies were affiliated with a small number of clinical programs and may not be representative of other regions or training emphases. Also, our Study 1 coders, while similar in many respects to graduate school applicants, were trained in our coding system and thus were likely more informed consumers than many of their peers. This may have enhanced their evaluations of information clarity and helpfulness because they knew what to look for, or conversely dampened their evaluations because they had higher expectations for information. Future research should examine perceptions of more diverse samples of student consumers. In addition, we only coded a small subsample of doctoral program websites in Study 2, which may limit the generalizability

of our findings. However, our random selection of these programs decreases this possibility. Finally, although examining the presence, currency, and perceived clarity and helpfulness of program data is an important step in examining the quality of doctoral programs' public disclosure data, it is only part of the process. Future research should also examine aspects of the comparability and accuracy of programs' self-reported data relative to external data about programs.

Implications and Recommendations

Overall, our data suggest that great strides have been made in recent years with graduate programs providing complete, albeit slightly outdated, public disclosure data regarding time to completion, program costs, attrition, internship attainment, and licensure attainment. Moving forward, our findings suggest several recommendations for the training community. Clearly, continued efforts to support presentation of program data that are complete, current, accurate, and understandable to consumers are crucial. Organizations and scholars have supported this with recommendations or requirements for program information disclosure (e.g., CUDCP, CoA), and educational publications to help consumers understand program data (e.g., American Psychological Association, 2007, 2011; Kracen & Wallace, 2008; Norcross & Sayette, 2014). Programs can contribute to the useful body of information by ensuring that their data are available, accurate, in the required or recommended format, and as noted above, explained in the context of their program's specific aims or circumstances. The training community should also continue to examine how to make public disclosure data meaningful to consumers. It remains unclear if the currently required data are sufficient for answering the kinds of questions raised by various consumers or constituencies. The way these data are used likely varies depending on the website viewer and their purpose for collecting the program information (e.g., an applicant

determining fit to a potential program, the profession evaluating its own effectiveness in training, the general public evaluating the value of investing in graduate education in professional psychology for publicly funded institutions). Data on credentials of successful applicants, student debt loads, and graduates' employment and accomplishments may be the types of supplemental data that would prove beneficial for answering such questions. For example, one specific recommendation offered by our coders was that programs should provide clearer indication students' out-of-pocket costs, including whether they are required to pay the listed tuition (vs. the program paying or waiving it). Finally, IR C-20 is relatively new and has undergone many revisions in the past 8 years. The long-term impact of this requirement remains to be seen and examinations such as ours should continue.

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Table 1

Compliance of Required C-20 Public Disclosure Data

	Overall					
	% Present	% Present & Current	Clinical PhD % Present	Clinical PsyD % Present	Counseling % Present	School % Present
Location						
In One-Click	87.70	n/a	89.41	85.48	88.06	84.75
Correct Label	60.66	n/a	55.29	75.81	65.67	54.24
Time to Completion						
Mean	96.41	54.70	97.04	98.39	95.45	92.98
Median	89.78	50.83	88.76	95.16	90.91	85.96
BA vs. MA	42.42	23.60	38.46	50.00	40.91	47.37
% in <5 yrs	76.79	42.54	73.37	85.48	86.36	68.42
% in 5 yrs	81.49	44.75	79.88	91.94	87.88	68.42
% in 6 yrs	83.43	45.58	84.62	91.94	86.36	68.42
% in 7 yrs	78.45	42.54	79.29	80.65	83.33	68.42
% in >7 yrs	78.06	42.27	79.29	80.65	80.30	68.42
Program Costs						
Tuition	70.34	n/a	76.92	33.87	78.79	80.70
Required Fees	63.95	n/a	78.81	82.85	64.62	54.90
Cost Adjustments	63.32	n/a	80.79	25.00	52.31	64.71
Proportion of Costs Covered by Program	70.34	n/a	76.92	33.87	78.79	80.70
Proportion of Students with Cost Adjustments	63.95	n/a	78.81	82.85	64.62	54.90
Internship						
Data separated by cohort	90.75	90.68	95.83	93.33	80.00	84.91

# Applied	88.39	70.99	94.67	88.71	86.36	70.18
# Obtained	74.58	58.56	72.19	83.87	77.27	64.91
% Obtained	65.47	50.83	59.76	83.87	66.67	59.65
# Paid	88.68	70.72	93.49	90.32	87.88	77.19
% Paid	74.03	58.56	69.82	88.71	72.73	71.93
# APPIC	63.26	51.66	68.64	91.94	65.15	22.81
% APPIC	54.97	44.48	57.40	90.32	56.06	15.79
# APA	88.12	69.61	88.17	93.55	87.88	82.46
% APA	74.59	59.12	69.82	91.94	78.79	61.40
# Other Org.	16.85	15.47	12.43	45.16	15.15	3.51
% Other Org.	16.02	14.92	11.24	45.16	13.64	3.51
# CDSPP	15.20	11.33	3.55	4.84	3.03	70.18
% CDSPP	12.16	9.67	2.37	6.45	3.03	56.14
# Half Time	59.95	46.41	53.25	74.19	59.09	68.42
% Half Time	43.09	35.36	39.64	62.90	37.88	42.11
Attrition						
Attrition Table	81.48	70.71	75.74	96.77	80.30	80.70
Licensure						
# Graduated in 2-10yrs	76.24	54.42	75.74	88.71	71.21	71.93
# Licensed	77.93	55.52	75.74	82.26	83.33	75.44
% Licensed	86.46	61.05	86.39	91.94	80.30	85.96
Correct %	53.86	40.88	47.93	75.81	46.97	57.89

Table 2

Compliance of Graduate Programs on Required C-20 Public Disclosure Data by Format

	% Present		% Current	
	Table	Narrative	Table	Narrative
Time to Completion				
Mean	97.51	100.00	60.50	37.33
Median	91.46	90.67	55.87	36.00
Separate for Bachelors vs. Masters	44.84	33.33	27.05	10.67
% Graduated in <5 yrs	76.87	82.67	46.26	32.00
% Graduated in 5 yrs	81.85	86.67	48.04	36.00
% Graduated in 6 yrs	84.34	86.67	48.75	37.33
% Graduated in 7 yrs	79.72	80.00	45.91	33.33
% Graduated in >7yrs	78.65	81.33	45.55	33.33
Program Costs				
Tuition	91.46	81.60	55.49	48.47
Required Fees	80.49	72.39	51.83	42.94
Cost Adjustments	78.66	77.91	n/a	n/a
Internship				
Data separated by cohort	99.07	0.93	99.07	0.93
# Applied	92.97	59.26	77.37	14.81
# Obtained Internships	77.06	66.67	63.61	14.81
% Obtained Internships	67.28	62.96	55.05	14.81
# Paid Internships	92.05	74.07	76.45	22.22
% Paid Internships	75.54	77.78	62.39	29.63
# APPIC Internships	66.06	48.15	55.96	14.81
% APPIC Internships	56.88	48.15	48.01	14.81
# APA Internships	90.52	85.19	74.92	25.93
% APA Internships	76.45	74.07	63.30	25.93
# Other Org. Internships	17.14	11.11	16.82	3.70

% Other Org. Internships	17.13	7.41	16.21	3.70
# CDSPP Internships	14.68	25.93	11.62	11.11
% CDSPP Internships	11.93	18.52	9.79	11.11
# Half Time Internships	61.47	59.26	50.46	11.11
% Half Time Internships	44.95	33.33	38.53	7.41
Licensure				
# Graduated in 2-10 Yrs	82.44	81.95	58.78	58.54
# Licensed	84.73	82.93	61.07	59.02
% Licensed	90.08	95.12	64.89	66.34
Correct %	54.20	60.49	41.22	45.85

Table 3

Clarity Ratings and Contextualization of Public Disclosure Data

	Clarity Ratings *M* (*SD)*	% Programs Contextualizing Data	Helpfulness Ratings *M* (*SD)*
Time to Completion	3.00 (0.98)	20.51%	2.66 (0.60)
Program Costs	2.04 (0.74)	17.43%	2.70 (0.75)
Internship	2.51 (1.07)	29.66%	2.49 (0.65)
Attrition	3.80 (0.41)	30.41%	2.62 (0.64)
Licensure	2.69 (1.13)	44.35%	2.68 (0.71)

Table 4

Compliance of C-20 Public Disclosure Data – Study 2

	Overall					
	% Present	% Present & Current	Clinical PhD % Present	Clinical PsyD % Present	Counseling % Present	School % Present
Time to Completion	76.40	54.20	79.41	83.33	84.62	54.55
Program Costs	80.60	50.00	84.85	83.33	100.0	50.00
Internship	78.10	54.80	82.35	91.67	84.62	50.00
Table 1						
Internship	76.80	52.10	82.35	91.67	84.62	47.67
Table 2						
Attrition	84.90	61.60	88.24	91.67	100.0	58.33
Licensure	80.80	54.80	85.29	91.67	92.31	50.00