Special Section - Career Issues and the Undergraduate Psychology Major

Psychology Doctoral Program Admissions: What Master's and Undergraduate-Level Students Need to Know



Teaching of Psychology 2018, Vol. 45(1) 75-83 © The Author(s) 2017 Reprints and permission: sagepub.com/journalsPermissions.nav DOI: 10.1177/0098628317745453 journals.sagepub.com/home/top

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Abstract

What do psychology doctorate programs require and prefer in their master's level applicants? Do the programs value students' graduate experiences during and postadmission? Doctoral programs' (n = 221) responses to an online survey showed that most required letters of recommendation, personal statements, Graduate Records Examination scores, and undergraduate grade point average. These credentials, interviewing skills, and student-mentor research match are crucial to admission decisions. However, clinical PhD, counseling PhD, clinical and counseling PsyD, practice subfields (e.g., school psychology), and research subfields (e.g., social psychology) evaluated differently 8 of the 26 credentials. Master's-level applicants benefit more than bachelor's-level applicants when beginning their doctoral work (e.g., having their master's theses waived), but the advantages vary by subfields. Implications and recommendations for doctoral applicants are discussed.

Keywords

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psychology doctoral programs, master's-level students, admission criteria, psychology subfields

In 2013–2014, the number of applicants to psychology doctoral programs (79,647) far exceeded the number of admission offers made (10,564; Michalski, Cope, & Fowler, 2015), appearing to confirm the oft-repeated mantra, "Admission to psychology doctoral programs is very competitive." However, acceptance rates of doctoral programs depend on the subfield to which students apply (ranging from 7% for social psychology to 25.2% for educational psychology; Michalski et al., 2015). In addition, within the same subfield, the acceptance rates can differ considerably, depending on whether the programs emphasize research and/or practice (Norcross, Ellis, & Sayette, 2010). For example, Norcross, Ellis, and Sayette (2010) reported that clinical doctor of philosophy (PhD) researchoriented programs accepted 7% of applicants while freestanding clinical doctor of psychology (PsyD) programs accepted 50%. To optimize their chances of gaining admission to psychology doctorate programs, students (and their academic advisors) need to know what doctoral programs in the students' subfield of interests (e.g., clinical PhD, PsyD, counseling PhD, experimental, social psychology, and developmental) require and value when making admission decisions.

Many students pursuing graduate study in psychology enroll in a master's program. In fact, four and one-half times more students earn their master's degrees than doctorate degrees in psychology (National Center for Education Statistics, 2015). Several reasons exist for the popularity of the psychology master's programs. First, master's programs accept more applicants (51.2%) than do doctoral programs (13.3%; Michalski et al., 2015). Second, doctoral training typically requires a commitment of 5 years in comparison to the 2 years required by terminal master's programs (American Psychological Association [APA], 2014). Third, some undergraduate students may elect to enroll in a master's program because they are uncertain of their career interests. Master's programs provide students formal opportunities to try various professional activities (e.g., conducting research, conducting psychotherapy, and teaching), so they will be more informed when deciding whether or not to pursue doctoral training. In addition, master's programs provide students with opportunities to acquire more in-depth psychology-related content knowledge, so students can select the specific psychology subfield to pursue to accomplish their career goals (e.g., counseling vs. clinical psychology and social vs. developmental psychology). Finally, graduates from terminal master's programs might be more competitive for admission to doctoral programs because of these formal experiences and training (Perlman & Dehart, 1985). Indeed, the most common outcome for graduates from master's programs is to enroll

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Linh Nguyen Littleford, Department of Psychological Science, Ball State University, Muncie, IN 47306, USA. Email: Inlittleford@bsu.edu in doctoral/professional programs (28.1%; Graduate Study in Psychology, 2014).

Our study focused on how students with master's degrees can optimize their competitiveness for doctoral program admission because master's-level students comprise the majority of graduate students in psychology. Our findings can help students prioritize their training (e.g., completing a thesis if not required or acquiring additional research, teaching, and gaining clinical experience) to maximize the advantages of their master's-level credentials. However, our results will also benefit applicants with bachelor's-level degrees. The findings can guide undergraduates applying to master's programs to select programs that offer opportunities to increase their competitiveness for doctoral programs. Furthermore, our study's findings can help undergraduate students applying to doctoral programs directly after receiving their bachelor's degrees. Thus, the information can help all applicants be strategic when seeking opportunities in their undergraduate and master's-level training to optimize their chances of admission to doctoral programs. In addition, knowing their subfield of interest's preferences regarding applicants' behaviors prior to applying and during admission (e.g., whether students should contact faculty before applying to the programs and whether campus visits, phone interviews, and on-site interviews are expected) can help undergraduate and master's-level applicants act appropriately and be more prepared during the application process.

Knowing which criteria are required and which are weighed most heavily for doctoral programs may be valuable to faculty and staff who advise undergraduate and master's-level students who wish to attend doctoral programs. In addition, these findings may help directors of psychology terminal master's programs refine their training models and curricula to help their graduates be more competitive applicants in their targeted subfield doctoral programs if doctoral preparation is a mission of the program.

Doctoral Programs' Admission Criteria

Researchers have consistently found the following credentials to be highly important to essentially all psychology doctoral program admissions: letters of recommendation, grade point average (GPA), statement of goals, interview, Graduate Records Examination (GRE) scores, and research experience (APA, 2014; Landrum & Clark, 2005; Landrum, Jeglum, & Cashin, 1994; Norcross, Kohout, & Wicherski, 2005). It should be noted that these studies included all applicants in their analyses and did not specify whether the applicants had undergraduate or master's degrees. Given the sources of their data, it is likely that the researchers combined both groups of applicants in their studies. In our review of the literature, we specified studies that included master's-level students.

Doctoral Programs' Admission Criteria by Subfields

Researchers have begun to examine whether different types of programs weigh admission criteria equally. With two

exceptions (Bonifazi, Crespy, & Reiker, 1997; Pashak, Handal, & Ubinger, 2012), prior studies that have examined programs evaluation of admission credentials included only one rather than multiple subfields in each study. One such study found that APA-accredited clinical psychology doctoral programs valued research experience, letters of recommendation, statements of purpose, GRE quantitative score, interview, and GPA when making admission decisions (Muñoz-Dunbar & Stanton, 1999). Personality and social psychology doctoral programs valued applicants' commitment to research, GRE scores, letters of recommendation, GPA, student-faculty interest match, research experience, personal statement, psychology GPA, and quantitative skills when making admission decisions (Uleman & Weary, 1995). Directors of APA-accredited counseling PhD programs, when asked to rank order applicant credentials, rated ethnic minority applicants most highly, followed by applicants' research publication, research experience, GRE scores, and GPA (Alexander, Heineman, Zarin, & Larson, 2002).

Pashak, Handal, and Ubinger (2012) directly compared the subfields' admission preferences and reported that both clinical PhD and PsyD programs rated GRE scores highly, and undergraduate GPA and personal statements were rated somewhat highly. They also found that clinical PhD programs most valued research experience and research match while clinical PsyD programs most valued interview and clinical experience. Similarly, counseling PhD and school psychology programs valued master's-level applicants' clinical experience more than did clinical PhD programs (Bonifazi et al., 1997). In addition, clinical PsyD, counseling PhD, and school psychology programs rated master's-level applicants' work/life experience as more important than did clinical PhD programs (Bonifazi et al., 1997).

Taken together, findings from studies that focused only on master's-level applicants and those from all applicants suggest that most doctoral psychology programs deemed applicants' GRE scores and undergraduate GPA as crucial to admission decisions. The relative importance of letters of recommendation, research experience, personal statements/goals, interview, and other applicant credentials depended on the types of program and subfield. As mentioned previously, most of these studies did not directly compare the preferences among the subfields. Although researchers have identified the educational experiences and accomplishments that affect master's-level applicants' chances of acceptance, only a few studies examined whether applicants with master's degrees are advantaged or disadvantaged relative to those with undergraduate degrees during the application process and after students are admitted.

Evaluations of Master's-Level Applicants During and After Admission

Perlman and Dehart (1985) reported that having a master's degree when applying to a doctoral program in psychology may help increase applicants' competitiveness compared to when these same applicants only had a bachelor's degree. Investigating students who had graduated with their master's degrees,

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Perlman and Dehart found that 86% of students who obtained their master's degree and then applied to a doctoral program gained admission. Of these students, around 64% had applied to a doctoral program before receiving their master's degree, with 94% of these students being denied admissions to doctoral programs before they had received their master's degree.

Hines (1986), however, reported that merely having a clinical master's degree had no effect or a minimally positive effect on students' chances of admissions to most clinical PhD programs. Only 10% of clinical PhD programs reported that a master's degree positively affected applicants' chances of admission (Hines, 1986). Eleven years later, Bonifazi, Crespy, and Reiker (1997) showed that 25% of clinical PhD programs reported that having a master's degree had a somewhat positive or a positive effect on applicant's chances of admission. Bonifazi et al. found that the subfields differed in their preferences for applicants with master's degrees. For students applying to nonclinical PhD subfields, possessing a master's degree can be advantageous, especially if their undergraduate GPAs and GRE scores were high. Specifically, clinical PsyD (83%), counseling PhD (69%), and school psychology (63%) programs considered a master's degree as having a somewhat positive or a positive effect on admission decisions if applicants had good (rather than mediocre) undergraduate GPAs and GRE scores. Researchers from both studies suggested that students who enroll in master's programs can enhance their credentials by seeking out research experiences and opportunities to work closely with faculty who can then write strong letters of recommendation, two admission criteria highly valued by clinical PhD programs.

After they are admitted to doctoral programs, master's-level applicants' accomplishments appear to place them at a significant advantage over their undergraduate counterparts. For example, Hines (1986) found that 65% of clinical PhD programs would allow students' master's thesis credits to transfer and 47% reported that master's students can save up to 1 year in their doctoral programs. Although this was the only advantage investigated by Hines, there are likely many more and might differ by subfields. Master's applicants who enter clinical PhD, counseling PhD, and school psychology programs will have more time reduced than if they enroll in PsyD programs (Bonifazi et al., 1997). In addition, admitted students who already completed their master's theses can have them transferred to most clinical PhD programs but to fewer school psychology (46%), clinical PsyD (46%), and counseling PhD (21%) programs (Bonifazi et al., 1997). Because the aforementioned studies were conducted between two and four decades ago, it is important to ascertain whether these findings still apply to today's clinically related and applied subfields. In addition, it is important to survey developmental, social, industrial/organizational, cognitive, neuroscience, and other subfields because there is no known information on their evaluation of master's-level applicants.

Study Purpose

The present study had two main goals: (1) to explore whether psychology subfields differ in how they evaluate applicants

with master's degrees and (2) to examine the advantages and disadvantages of having a master's degree during and after doctoral programs' admission processes. To accomplish these goals, we first ascertained the credentials required for admission consideration by the subfields. In addition to the traditional admission criteria studied by prior researchers, we included credentials that may be important to today's doctoral programs such as experiences with diversity. Second, we assessed whether the subfields differed in how they weighed applicants' credentials during the admission process. Third, within each psychology doctoral program type, we explored the benefits and disadvantages of having a master's degree and accomplishments earned in master's programs during the admission process and after students have gained admission.

Method

Procedure

The study was approved by and conducted in compliance with the institutional review board at the authors' current institution. Using the 2014 APA *Graduate study in psychology* directory, a list of all doctoral programs in psychology was created. Because most departments had more than one program/ subfield, we also visited websites of all doctoral programs to identify representatives for each subfield. We sent recruiting e-mails to 837 representatives of accredited and nonaccredited psychology doctoral programs in the United States. We informed potential participants that the study focused on psychology doctoral program admission criteria and feedback on doctoral programs' evaluation of applicants with and without master's degrees. A reminder e-mail was sent 2 weeks after sending the first recruiting e-mail.

Participants completed an anonymous survey that was comprised of 14 questions designed to measure which factors doctoral psychology programs value when making admission decisions. Participants were instructed to select answers that applied to all of their doctoral programs if they offered multiple programs and to indicate exceptions when appropriate. Two questions assessed the minimum criteria (select if required) and relative importance of 26 applicant credentials (1 = low,2 = medium, and 3 = high). Six questions examined the benefits and disadvantages of having a master's degree to the doctoral admission process. Two questions examined issues related to using formulas in the admission process. Three questions ascertained the respondent's position in the department, the doctoral degree(s) conferred, and the subfield(s) the department offered. For a copy of the survey, please contact the first author.

Participants

A total of 222 (26.5%) program representatives completed the survey. Their departments offered PhD programs (85.5%), PsyD programs (clinical and counseling, 15.4%), "other" programs (PhD and PsyD within their master's-level programs, 4.1%), an EdD program (0.5%), or some combinations of these

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Table 1. Required Credentials to be Considered for Admission by Subfields.

	All Programs	Practice Subfields	Research Subfields	Clinical PhD	Counseling PhD	PsyD	
Admission Criteria	(N = 221, %)	(n = 20, %)	(n = 49 , %)	(n = 41, %)	(n = 22, %)	(n = 32, %)	
Letters of recommendation	98.2	100.0	100.0	97.6	100.0	100.0	
Personal statement	96.8	95.0	100.0	92.7	100.0	96.9	
GRE	96.4	100.0	100.0	95.1	100.0	87.5	
Undergraduate GPA	91.4	100.0	89.8	90.2	8.18	93.8	
Interview	67.9	70.0	34.7	78.0	86.4	96.9	
Curriculum vitae	60.6	70.0	42.9	65.9	95.5	84.4	
Student-mentor research match	57.0	55.0	73.5	75.6	45.5	0.0	
Research assistance experience	27.1	25.0	28.6	43.9	27.3	3.1	
Graduate GPA	24.9	25.0	20.4	12.2	59.1	37.5	
MA/MS degree	8.6	15.0	10.2	0.0	18.2	18.8	
Other	8.1	10.0	10.2	12.2	9.1	3.1	
Work/life experience	7.2	10.0	2.0	2.4	22.7	18.8	
Diversity experience	5.4	5.0	0.0	4.9	18.2	9.4	
GRE subject test	5.4	0.0	8.2	7.3	4.5	9.4	
Clinical/counseling experience	5.0	0.0	0.0	2.4	27.3	12.5	
Research publications	3.6	0.0	2.0	9.8	0.0	0.0	
Independent research project	2.7	0.0	2.0	7.3	0.0	0.0	
Conference presentations	2.3	0.0	0.0	9.8	0.0	0.0	
Contacted faculty before applying	2.3	0.0	4.1	2.4	0.0	0.0	
Master's thesis	1.8	0.0	2.0	0.0	4.5	0.0	
Campus visit before applying	1.4	0.0	0.0	0.0	4.5	0.0	
Applied research internship experience	0.9	0.0	0.0	2.4	0.0	3.1	
Teaching assistance experience	0.0	0.0	0.0	0.0	0.0	0.0	
Teaching experience (sole or coinstructor)	0.0	0.0	0.0	0.0	0.0	0.0	

Note. "All programs" is comprised of all respondents including those from departments that offer multiple psychology subdisciplines (e.g., clinical PhD and other PhD subfields) who were not included in one of the five mutually exclusive subfield categories. "Research subfields" included social/personality, industrial/ organizational, developmental, cognitive, experimental, forensic, human development and family studies, qualitative, organizational leadership, mathematical and computational cognitive science, general psychological science, perception, engineering psychology, and social, and/or health. "Practice subfields" included school psychology, community psychology, and applied behavior analysis. GPA = grade point average; GRE = Graduate Records Examination.

degrees (e.g., PsyD and PhD programs; PhD, EDS, MA, and MED). We excluded from data analyses responses from the one EdD program because of the small sample size. Thus, our final sample size was 221. Most respondents were the directors of graduate or clinical training (65.1%). The remaining respondents were department heads/chairs (22.6%), admission coordinators (12.7%), director of admissions (9%), and others (2.7%). With the option of selecting more than one subfield, respondents reported that their departments offered the following subfields: clinical (51.6%), cognitive (27.1%), developmental (25.8%), social/personality (24.9%), neuroscience/biological (23.5%), experimental (14.9%), school/education (14.0%), counseling (13.6%), industrial/organizational (10.9%), community (1.8%), and other subfields (22.2%).

Results

We created six mutually exclusive categories: five major subfield categories and one miscellaneous category. The five subfield categories included only participants who indicated that their responses applied to one type of program: clinical PhD (n= 41), PsyD (n = 32: 30 clinical PsyD, 2 counseling PsyD), counseling PhD (n = 22), research subfields (n = 49), and practice subfields (n = 20). The sixth category (miscellaneous)

included respondents (n = 57) from departments that offered multiple psychology subdisciplines (e.g., combination of clinical PhD and research and/or practice subfields or combination of counseling PhD and research and/or practice subfields). We grouped participants from nonclinical and noncounseling subfields into "research subfields" and "practice subfields" using Norcross and Sayette's (2014) classification (see note in Table 1 for specific programs in each subfield category). We used these categories due solely to small sample sizes and were not suggesting that clinical and counseling PhD programs view research or practice as unimportant. We then created one aggregate category ("all programs") to include all 221 respondents. Because the miscellaneous category included combinations of subfields, we excluded this category from analyses exploring subfield differences. Responses from the miscellaneous category were included only when we presented information about all respondents in the study ("all programs").

Credentials Required for Consideration

Descriptive statistics revealed that most programs required letters of recommendation, personal statements, GRE scores, and undergraduate GPAs (see Table 1). More than half of the respondents indicated that their programs required interviews,

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Table 2. Differences in Ratings of Importance of Admission Criteria by Subfields.

	All Programs	Practice Subfields	Research Subfields	Clinical PhD	Counseling PhD	PsyD		
	(N = 221)	(n = 20)	(n = 49)	(n = 41)	(n = 22)	(n = 32)		
Admission Criteria	M (SE)	M (SE)	M (SE)	M (SE)	M (SE)	M (SE)	F value	η^2
Primary importance								
Personal statement	2.8 (.03)	2.9 (.07)	2.8 (.06)	2.8 (.06)	3.0 (.00)	2.8 (.07)	1.52	.04
Letters of recommendation	2.8 (.03)	2.8 (.08)	2.9 (.06)	2.8 (.07)	3.0 (.04)	2.7 (.08)	1.57	.04
Interview	2.8 (.03)	2.8 (.10)	2.6 ^b (.11)	2.8 (.06)	3.0ª (.00)	2.9 ^a (.04)	4.72*	.12
Undergraduate GPA	2.8 (.03)	2.7 (.13)	2.7 (.07)	2.8 (.07)	2.7 (.10)	2.8 (.09)	0.31	.01
Student-mentor research match	2.7 (.04)	2.7 ^b (.17)	2.9 ^{b,1} (.04)	2.9 ^{b,1} (.05)	2.5 ^{6,2} (.15)	1.5ª (.15)	30.27*	.48
GRE	2.7 (.03)	2.7 (.10)	2.6 (.07)	2.7 (.08)	2.5 (.13)	2.7 (.09)	0.61	.02
Secondary importance						. ,		
Research assistance experience	2.2 (.05)	2.1ª (.16)	2.3ª (.11)	2.6ª (.08)	2.1ª (.15)	1.4 ^b (.13)	11.04*	.24
Tertiary importance						. ,		
Diversity experience	1.9 (.06)	1.7 ^{b,2} (.17)	1.5 ^{b,2} (.13)	1.9 ² (.12)	2.5 ¹ (.13)	2.4ª (.15)	9.56*	.23
Conference presentations	1.9 (.04)	1.9 (.10)	l.7 ^b (.09)	2.3 ^a (.10)	1.8 ⁶ (.08)	1.8 ^b (.10)	6.48*	.16
Work/life experience	1.7 (.05)	2.1ª (.16)	1.4 ⁶ (.10)	1.5^2 (.10)	$2.3^{a,1}$ (.17)	2.1 ^{a,1} (.11)	11.66*	.27
Clinical/counseling internship experience	1.7 (.06)	1.7 (.22)	1.0 ^b (.00)	1.7 ^a (.12)	2.0 ^a (.18)	2.1ª (.14)	5.84*	.19
Contacted faculty before applying	1.4 (.05)	1.5ª (.16)	1.8 (.12)	1.2 ^b (.08)	1.1 ^b (.08)	1.1 ^b (.07)	7.39*	.20

Note. Mean scores indicate relative importance of applicant credentials (1 = low, 2 = medium, and 3 = high). Means with different letter superscripts differ significantly from each other; means with different number superscripts differ significantly from each other (Games-Howell post hoc test, p < .002). "All programs" include those that offer multiple psychology subdisciplines in the same department (not used in *F* test comparisons) and those from the five subfield categories. GPA = grade point average; GRE = Graduate Records Examination.

*p < .002, using Bonferroni correction.

curriculum vitae (CV), and a good student-mentor research match. About a quarter of programs required applicants to have had research assistance experience and graduate GPAs. Fewer than 9% of all programs required that their applicants have a master's degree, work/life experience, diversity experience, GRE subject scores, prior clinical/counseling experience, research publications, independent research projects, conference presentations, a master's thesis, a campus visit before applying, contacting faculty before applying, or applied research internship experience. None of the programs required applicants to have previous teaching experience. It should be noted that these percentages varied widely, depending on the criterion and the subfields (e.g., whereas 27.1% of the sample required research assistantship experience, 3.1% of clinical PsyD, and 43.9% of clinical PhD programs required this credential).

Credentials Important to Admission Decisions

To determine whether the five subfield categories differed in how they weighed applicants' credentials, we conducted a series of Welch analyses of variance, followed by Games-Howell post hoc tests on the mean importance scores on 26 admission criteria. We used these tests because our data had unequal sample sizes and violated homogeneity of variance assumptions. Because we conducted multiple comparisons, we used Bonferroni correction and set our α at p < .002 to detect statistically significant group differences. Results showed that the subfields weighed differently on 8 of the 26 applicant criteria when making admission decisions: interview, student-mentor research match, research assistance experience, diversity experience, conference presentations, work/life experience, clinical/counseling practicum/internship experience, MA/MS degree, and contacted faculty before applying (see Table 2).

Examining responses from all 221 doctoral programs, we found six credentials to be of *primary* importance to admission decisions (mean scores ≥ 2.7 , ranging from 1 to 3): personal statements, letters of recommendations, interview, undergraduate GPA, student-mentor research match, and GRE scores. However, the subfields differed significantly in how important they rated interviews and student-mentor research match. Clinical and counseling PhD and PsyD programs rated the interview as more important than did the research subfields. All subfields valued student-mentor research match more than did PsyD programs (see Table 2).

We found five credentials to be of *secondary* importance to admission decisions across all programs (mean scores 2.0– 2.49): graduate GPA, CV, research assistance experience, independent research project, and research publications. The subfields differed significantly on one of these credentials: All subfields rated research assistance experience as more important than did PsyD programs.

We found 15 credentials to be of *tertiary* importance to admission decisions across all programs (mean ratings 1.0–1.99). The subfields differed significantly on five of these credentials: diversity experience, conference presentation, work/life experience, clinical/counseling internship experience, and contacting faculty before applying.

Effect on Offer $\frac{\text{All Programs}}{(N = 221)}$	All Programs	Practice Subfields	Research Subfields	Clinical PhD	Counseling PhD	PsyD
	(n = 20)	(n = 49)	(n = 41)	(<i>n</i> = 22)	(n = 32)	
Very positive	8.1	10.0	6.1	2.4	27.3	15.6
Positive	44.8	45.0	49.0	43.9	40.9	40.6
No effect	43.9	40.0	40.8	51.2	27.3	40.6
Negative	8.1	5.0	2.0	2.4	0.0	3.1
Very negative	0.5	0.0	0.0	0.0	0.0	0.0
No response	0.9	0.0	2.1	0.1	4.5	0.0

Table 3. Percentages of Programs and Their Reported Effect of Having a Master's Degree on Admission Offer.

Note. Results from the Kruskal–Wallis H test indicated no significant differences among the subfields. "All programs" include the five subfield categories and those that offer multiple psychology subdisciplines in the same department. Totals may not add to 100% due to rounding.

Table 4. Percentages of Programs and Their Likelihood of Offering Admission to Applicants With Master's Degrees Compared to Those With Bachelor's Degrees.

	All Programs	Practice Subfields	Research Subfields	Clinical PhD	Counseling PhD	PsyD
Likelihood of Offer	(N = 221)	(n = 20)	(n = 49)	(n = 41)	(n = 22)	(n = 32)
Much more likely	7.2	5.0	4.1	2.4	27.3	15.6
Somewhat more likely	21.3	15.0	20.4	14.6	36.4	13.0
Equally likely	62.9	70.0	71.4	63.5	31.8	56.3
Somewhat less likely	6.3	10.0	2.0	19.5	0.0	6.3
Much less likely	1.4	0.0	0.0	0.0	0.0	3.1
No response	0.9	0.0	2.1	0.0	4.5	0.0

Note. Kruskal-Wallis H test and Dunn-Bonferroni post hoc test results indicated that counseling PhD programs were statistically more likely to offer admission to applicants with master's degrees than did practice subfields, research subfields, and clinical PhD programs. "All programs" include the five subfield categories and those that offer multiple psychology subdisciplines in the same department.

Effect of Master's Degree on Admission Decisions

Of all the programs surveyed (see Table 3), 52.9% viewed having a master's degree as positive or very positive on the admission decision. Kruskal–Wallis *H* tests indicated that the subfields did not report statistically different views on the effect of having a master's degree on admission decision.

However, Kruskal–Wallis *H* test and Dunn-Bonferroni post hoc test results indicated that compared to practice subfields, research subfields, and clinical PhD programs, counseling PhD programs were statistically more likely to report that they would *offer admission* to applicants with master's degrees than to applicants with bachelor's degrees (see Table 4).

Master's-Level Accomplishments and Postadmission Process

Descriptive statistics showed that, whereas 13.1% of respondents reported that master's-level applicants' theses would transfer and 41.6% might transfer contingent on review, the subfields appear to differ in their thesis transferring practices (see Table 5). The majority of research subfields, practice subfields, and clinical PhD programs would consider transferring students' master's theses, whereas only a few PsyD programs and counseling PhD programs would do the same. In addition, the majority (75.6%) of all the programs surveyed reported that time in their doctoral programs can be reduced, dependent upon the number of credit hours accepted, if students completed a master's degree before admission (see Table 6). It appears that more than half of the practice subfields, research subfields, clinical PhD, and counseling PhD programs would reduce master's-level applicants' time in their doctoral programs, and 50% of PsyD programs would do the same.

Discussion

Our study explored whether psychology subfields differed in how they evaluated credentials of master's level students applying to their doctoral programs and whether master'slevel applicants have an advantage over bachelor's-level applicants during and postadmission. The results showed five main findings that have direct implications for undergraduate and master's-level students and their advisors and directors of terminal master's programs. In discussing the findings, we outline recommendations that might help undergraduate and master'slevel students increase their competitiveness for doctoral program admission and to maximize the benefits of accomplishments earned by students in terminal master's programs. It is important to note that the suggestions may or may not

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Table 5. Transferability of Completed Thesis.

	All Programs	Practice Subfields	Research Subfields	Clinical PhD	Counseling PhD	PsyD
Thesis Transferability	(N = 221)	(n = 20)	(n = 49)	(<i>n</i> = 41)	(n = 22)	(n = 32)
Can be transferred	13.1	5.0	20.4	9.8	13.6	3.1
Contingent on review	41.6	40.0	44.9	46.3	4.5	6.3
No comparable requirement	14.0	20.0	6.1	4.9	22.7	40.6
No transfer	30.8	10.0	22.4	31.7	45.5	46.9
No response	0.5	25	6.1	7.3	13.6	3.1

Note. The values are percentages of programs responding in each category. "All programs" include the five subfield categories and those that offer multiple psychology subdisciplines in the same department.

Table 6. Amount of Time Reduced If Entering With Master's Degree.

Time Reduced	All Programs	Practice Subfields	Research Subfields	Clinical PhD	Counseling PhD	PsyD
	(N = 221)	(<i>n</i> = 20)	(n = 49)	(n = 41)	(n = 22)	(n = 32)
Up to 2 years	15.4	15.0	28.6	4.9	22.7	0.0
Up to I year	35.7	65.0	46.9	36.6	36.4	21,9
Less than I year	20.4	10.0	10.2	22.0	18.2	28.1
Contingent on review	4.1	0.0	4.1	2.4	0.0	3.1
No time reduced	23.5	10.0	8.2	34.1	18.2	46.9
No response	0.9	0.0	2.0	0.0	4.5	0.0

Note. The values are percentages of programs responding in each category. "All programs" include the five subfield categories and those that offer multiple psychology subdisciplines in the same department.

apply to the specific programs to which students might apply. To maximize their chances of admission to specific schools and programs, we recommend that students check those program's websites and the most recent edition of APA's Graduate Study in Psychology regarding their selected programs' requirements and preferences a year or two before they apply. This will allow students time to obtain the specific credentials that would make them most competitive for those particular programs.

Practical Implications

First, we found that most programs required letters of recommendation, personal statements, GRE scores, and undergraduate GPAs from their applicants. Thus, regardless of the psychology subfields to which students plan to apply, they must be prepared to submit these credentials. We noted that about a quarter of all programs required research assistantship experience. Therefore, we strongly encourage students who wish to apply to PhD programs to seek opportunities to assist faculty with research, as this would allow students to be eligible for admission consideration.

On other credentials, students should be cognizant of the common requirements of their psychology subfields as early as possible, so they can acquire the necessary credentials. For example, we found that only 2.4% of clinical PhD programs required applicants to have previous clinical/counseling internship experience, whereas 27.3% of counseling PhD programs did. In contrast, 75.6% of clinical PhD programs required student-mentor research match and 43.9% required research

experience compared to 45.5% (student-mentor match) and 27.3% (research experience) of counseling PhD programs. These findings suggest that students would be considered by more clinical PhD programs if they conducted research compared to if they completed a clinical/counseling internship. In contrast, students would be considered by more PsyD programs if they gained work/life, clinical/counseling, and diversity experiences. Finally, having teaching experience does not appear to directly benefit students in the application process because none of the doctoral programs required students to have previous teaching experience.

Second, regardless of their subfields of interests, students should submit strong personal statements, undergraduate GPA, letters of recommendation, and GRE scores, as all doctoral programs rated these credentials as crucial to admission decisions. In addition, students should strive to have strong graduate GPAs (master's-level applicants) and CVs, have independent research experience, and have published their research because most doctoral programs rated these as moderately important to admission decisions.

Third, the subfields differed in their ratings of eight credentials (interview, student-mentor research match, research assistance experience, diversity experience, conference presentations, work/life experience, clinical/counseling internship experience, and contacted faculty before applying), three of which were of primary or secondary importance to admission decisions. We suggest that students keep these findings in mind as they acquire their credentials and go through the application process. For example, students interested in applying to

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PsyD and counseling PhD programs might consider honing their interviewing skills, whereas those applying to research subfields might focus on conveying on their written applications how their research interests match with those of faculty in the programs. In contrast, students interested in applying to clinical PhD programs might need to focus on both interviewing skills and student-mentor research match because the majority of these programs require both and weigh them heavily when making admission decisions. Unless they plan to apply to PsyD programs, students should also strive to gain research experience.

Fourth, slightly more than half of the doctoral programs surveyed viewed applicants having a master's degree positively or very positively compared to their counterparts who have an undergraduate degree. However, the likelihood of being offered admission with a master's degree, compared to with a bachelor's degree, depended on the subfields. Thus, applicants with a master's degree should be aware that their degrees will more likely increase their chance of being admitted if they applied to counseling PhD programs than if they applied to other PhD programs.

Fifth, if admitted to doctoral programs, applicants with a master's degree have a head start over those with a bachelor's degree when beginning their doctoral work, especially if they enroll in subfields besides PsyD. Most research subfields, practice subfields, clinical PhD, and counseling PhD programs will reduce the amount of time master's-level students spend on their doctoral education. In addition, master's-level students are more likely to have their master's theses transfer and will not have to complete another thesis if they enroll in research subfields, practice subfields, or clinical PhD programs. On the one hand, having their theses waived by doctoral programs can benefit master's-level applicants because they would be able to take more time to plan, conduct, and disseminate the results (conference presentations and publications) from their dissertation and other research projects. In addition, if they do not receive sufficient funding while enrolled in doctoral programs, having the theses waived and time in the program reduced can have important financial benefits. On the other hand, master'slevel applicants should be mindful of the benefits associated with not reducing their time in the program, including having sufficient time and opportunities to learn from their mentors, to establish a programmatic line of research, and to acquire skills to be competent representatives of their profession. We encourage students to weigh these costs and benefits, as they make their decisions about their doctoral education.

Limitations

Before discussing additional implications of our findings, we acknowledge the limitations of our study. Although our response rate is comparable to the 28.1% reported by Pashak et al. (2012), the most recent study on this topic, our study's findings may not generalize to all the programs because our analyses included only a small sample of more than 800 programs in the United States. In addition, because of the sample

sizes, we had to aggregate multiple subdisciplines into research or practice subfield categories using Norcross and Sayette's (2014) classification. However, these categories may not accurately reflect some important differences between how these types of programs (e.g., cognitive, social, and developmental) weigh research and/or practical experiences when making admission decisions. In addition, we relied on self-reports from doctoral programs' representatives who may or may not serve on admission committees in the future and/or who may not know equally well all the subfields represented in their programs.

Research Implications

In general, our results on credentials that doctoral programs deemed as primary and secondary importance appear consistent with those reported by prior research (e.g., APA, 2014; Landrum & Clark, 2005; Landrum et al., 1994; Norcross et al., 2005). Similar to Bonifazi et al. (1997), we found that PsyD and counseling PhD programs viewed applicants with master's degrees favorably during the admission process.

However, some of our findings diverged from prior research. We found that clinical PhD programs viewed applicants with master's degrees more positively now than they did a few decades ago (see Bonifazi et al., 1997). This shift may be due to more available data on doctoral programs' admission offers (Alexander et al., 2002; Muñoz-Dunbar & Stanton, 1999; Pashak et al., 2012; Uleman & Weary, 1995), helping doctoral preparation master's programs improve the quality of training for their master's students.

Contrary to Morgan and Cohen (2008)'s conclusion that clinical and counseling PhD programs are essentially merging into similar programs, we found that counseling PhD and PsyD programs were more similar to each other than to clinical PhD programs. PsyD and counseling PhD programs rated more favorably applicants with master's degrees and work/life experience but less favorably applicants with conference presentations compared to clinical PhD programs. However, PsyD programs also differed from counseling PhD programs on the importance of research credential. Clinical PhD programs, in contrast, appeared to align more with the research subfields on their required and preferred credentials than counseling PhD or PsyD programs.

Conclusion

In summary, the findings from this study provide an updated and expanded review of doctoral programs' views of criteria required and preferred in applicants with bachelor's degrees only *and* those with master's degrees. Students interested in applying to doctoral programs can strengthen their competitiveness in the following ways: first, decide on the type of doctoral program they are interested in pursuing. Second, gain the experiences required and preferred by these subfields. Finally, highlight and elaborate on the accomplishments and credentials preferred by their subfields of interest in the applicants' CVs, personal statements, application materials, and interviews. Findings from this study can also help terminal master's psychology programs refine their training models and curricula to create opportunities that help their graduates be more competitive applicants for their targeted doctoral programs.

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Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

References

- Alexander, C. M., Heineman, C. J., Zarin, M. S., & Larson, L. M. (2002). Admission criteria to APA-accredited programs in counseling psychology over 10 years: Reflections of the specialty's values. *The Counseling Psychologist*, 30, 135–148.
- American Psychological Association. (2014). Graduate study in psychology 2014. Washington, DC: Author.
- Bonifazi, D. Z., Crespy, S. D., & Rieker, P. (1997). Value of a master's degree for gaining admission to doctoral programs in psychology. *Teaching of Psychology*, 24, 176–182. doi:10.1207/ s15328023top2403_5
- Hines, D. (1986). Admission criteria for ranking master's-level applicants to clinical doctoral programs. *Teaching of Psychology*, 13, 65–67.
- Landrum, R. E., & Clark, J. (2005). Graduate admissions criteria in psychology: An update. *Psychological Reports*, 97, 481–484. doi: 10.2466/pr0.97.2.481-484
- Landrum, R. E., Jeglum, E. B., & Cashin, J. R. (1994). The decisionmaking processes of graduate admission committees in psychology. *Journal of Social Behavior and Personality*, 9, 239–248.

- Michalski, D. S., Cope, C., & Fowler, G. A. (2015). Graduate study in psychology 2016. Summary report: Admissions, applications, and acceptance. American Psychological Association. Retrieved from http://www.apa.org/education/grad/survey-data/2016report.aspx
- Morgan, R. D., & Cohen, L. M. (2008). Clinical and counseling psychology: Can differences be gleaned from printed recruiting materials? *Training and Education in Professional Psychology*, 2, 156–164. doi:10.1037/1931-3918.2.3.156
- Muñoz-Dunbar, R., & Stanton, A. L. (1999). Ethnic diversity in clinical psychology: Recruitment and admission practices among doctoral programs. *Teaching of Psychology*, 26, 259–268. doi: 10.1207/S15328023TOP260403
- National Center for Education Statistics. (2015). Table 322.10. Backelor's degrees conferred by postsecondary institutions, by field of study: Selected years, 1970-71 through 2013-14. Retrieved August 30, 2016, from https://nces.ed.gov/programs/digest/d15/ tables/dt15_322.10.asp
- Norcross, J. C., Ellis, J. L., & Sayette, M. A. (2010). Getting in and getting money: A comparative analysis of admission standards, acceptance rates, and financial assistance across the researchpractice continuum in clinical psychology programs. *Training and Education in Professional Psychology*, 4, 99–104. doi:10.1037/ a0014880
- Norcross, J. C., Kohout, J. L., & Wicherski, M. (2005). Graduate study in psychology 1971 to 2004. *American Psychologist*, 60, 959–975. doi:10.1037/0003-066X.60.9.959
- Norcross, J. C., & Sayette, M. A. (2014). Insider's guide to graduate programs in clinical and counseling psychology (Rev. 2014/2015 ed.). New York, NY: The Guilford Press.
- Pashak, T. J., Handal, P. J., & Ubinger, M. (2012). Practicing what we preach: How are admissions decisions made for clinical psychology graduate programs, and what do students need to know? *Psychology*, 3, 1–6.
- Perlman, B., & Dehart, P. (1985). The master's-level clinician: Application and admission to doctoral programs. *Teaching of Psychol*ogy, 12, 67–71.
- Uleman, J. S., & Weary, G. (1995). Survey of doctoral programs in personality and social psychology, 1992. *Personality and Social Psychology Bulletin*, 21, 245–255.

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