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RESEARCH ARTICLE

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Doctoral students' intention to use assessments in their career: The incremental role of self-reported competence

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Abstract

Objective: Attaining competence in assessment is a necessary step in graduate training and has been defined to include multiple domains of training relevant to this attainment. While important to ensure trainees meet these standards of training, it is critical to understand how and if competence shapes a trainees' professional identity, therein promoting lifelong competency.

Methods: The current study assessed currently enrolled graduate trainees' knowledge and perception of their capabilities related to assessment to determine if self-reported and performance-based competence would incrementally predict their intention to use assessment in their future above basic training characteristics and intended career interests.

Results: Self-reported competence, but not performance-based competence, played an incremental role in trainees' intention to use assessments in their careers. Multiple graduate training characteristics and practice experiences were insignificant predictors after accounting for other relative predictors (i.e., intended career settings, integrated reports).

Conclusion: Findings are discussed about the critical importance of incorporating a hybrid competency-capability assessment training framework to further emphasize the role of trainee self-efficacy in hopes of promoting lifelong competence in their continued use of assessments.

KEYWORDS
assessment, competency, training

1 | INTRODUCTION

Training in health service psychology (HSP) revolves around a *culture of competence* (Roberts et al., 2005). This emphasis grew quickly after the 2002 Competencies Conference: Future Directions in Education and Training in Professional Psychology (Rubin et al., 2007) and has produced widespread impacts on education for HSP trainees, including recent advancements in considering the implications of assessment training following the COVID-19 pandemic (Casline et al., 2021; Palitsky et al., 2022; Patel et al., 2021). Contemporary training in these programs focuses on students' benchmarked progression through the development of foundational skills (Rodolfa et al., 2005). Such efforts coincide with the outcomes-focused approach to educational practices in assessment (e.g., Callahan, 2015) that dominate HSP training programs (Kaslow et al., 2006). As such, competency domains (Kaslow, 2004; Kaslow, Borden, et al., 2004; Rodolfa et al., 2005, 2013) are codified in their HSP educational role as evidenced by their integration into training standards set by the American Psychological Association's (APA, 2018) *Standards for Accreditation for Programs in Health Service Psychology*.

Psychological assessment is a well-recognized practice central to our profession (Benjamin, 2005), involving the integrative evaluation of testing data with an array of intended purposes (e.g., treatment planning, diagnostic formulation, forensic evaluation purposes, job candidate consideration, etc.). Psychological assessment is one of the core competencies of psychologists identified by the APA (2018) with specific competency components having been identified (Krishnamurthy et al., 2004). The central elements of training in assessment have been recognized by both specialty practice organizations and the APA's Board of Educational Affairs (BEA) (2020) through the recent publication of the *Guidelines for Education and Training in Psychological Assessment in Health Service Psychology*. These recent guidelines indicate that training should include: (a) integration of theory into testing, (b) psychometric and instrument measurement validity (see also American Educational Research Association [AERA], 2014), (c) selection and use of appropriate tests, including standardization practices (Wolfe-Christensen & Callahan, 2008), (d) integration of results within the broader evaluation and client context, (e) ethical and professional issues related to the above described domains, (f) considerations of diversity, and (g) supervision practices. Ensuring trainees attain competency in psychological assessment, therefore, represents a central goal in the doctoral education of psychologists.

There is a robust body of literature focused on identifying graduate course and practicum experience coverage in assessment for HSP (e.g., Childs & Eyde, 2002; Ingram et al., 2020; Mihura et al., 2017; Ready & Veague, 2014), as well as a coinciding and growing emphasis on the necessity of instructional practice research (Kaslow & Egan, 2017; Smith, 2017). Accordingly, recent focus on supervision practices have provided some promising directions for instructors to promote the attainment of competency in psychological assessment (Danzi et al., 2020; Iwanicki & Peterson, 2017). However, research linking educational practices with long-term outcomes are more limited, with extant work often having a pessimistic perspective related to the inadequacy of current training for attainment of assessment competency (Cook et al., 2017). TDs, for instance, consistently see internship applicants as unprepared to perform tasks that are central to psychological assessment in their capstone training year (e.g., report writing; Ready et al., 2016; Stedman et al., 2001). Likewise, there is little to guide internship programs on their didactic offerings to ensure trainees meet the heightened milestones of competence associated with internship (Zuckerman et al., 2020). None the less, the growing emphasis on assessment education and the necessity of formal evaluative frameworks and educational pedagogies with assessment specialties (e.g., Kaslow et al., 2018) provides promise for ongoing improvements in competency as research into those practices continues.

Practice of assessment (i.e., psychodiagnostic assessment) is more frequent among recognized specialties (e.g., neuropsychology and forensic psychology; Rabin et al., 2005; Varela & Conroy, 2012) and the heightened involvement in assessment by these specialties may explain their concern with professional competency (e.g., Cox, 2010; Cox et al., 2013). However, despite the emphasis on assessment competency within some specialties, trainees do not necessarily enter their field with exceptional competency above and beyond other trainees. Indeed, internship sites representing different areas of practice (e.g., Veterans Affairs, Community-Based, Child-Focused, Medical Settings, Psychiatric Hospitals) do not differentially prioritize assessment hours in applicants, with the exception of university counseling centers tending to place less emphasis on assessment (Ingram et al., 2021). Thus, assessment competency attainment by trainees is an important first step toward career-long, ethical, assessment practice regardless of trainee specialty and presumed future assessment activities.

Attaining competency as a trainee is a critical step to successive ethical practice (e.g., Fouad et al., 2009). However, research has, to date, not clarified if and how obtaining developmentally appropriate competency (or not attainting it) shapes subsequent professional practice or professional identity development. Given that simply maintaining the knowledge obtained during training is not sufficient across a psychologist's career to preserve competence (Neimeyer et al., 2012), understanding how competency attained during graduate training relates to professional identity and future decisions about professional activities is critical to promoting and preserving lifelong assessment competency (Rodolfa et al., 2005, 2013). Furthermore, it is important to understand if a trainee's competency in assessment as measured by valid test knowledge and administration is relatively equivalent in predicting a trainees' intention to engage in assessments in their profession as compared to their self-perception of their assessment abilities. To meet this need, we identify factors which predict the intention of trainees to conduct assessment in their careers to better understand how training programs may increase career-long commitments to assessment competency and practice.

Specifically, we investigate two main research questions. First, how do program factors (e.g., program type, or research emphasis), career setting interests (e.g., private practice, Veteran Affairs, corrections), clinical training experiences (exposure and use of assessment), self-reported competence (e.g., self-rated competence relative to peers), and performance-based competence (i.e., trainees' objective accuracy in assessment administration; Kaslow et al., 2018) relate to an intention to engage in psychological assessment. Training literature has investigated the importance of similar trainee and program specific variables with respect to trainees' attainment of a first job (Kaslow et al., 2018), however, research has not specified the role of these training variables specifically to assessment, nor evaluated them empirically, leaving empirical support lacking for the theoretical assumptions which guide training emphases. It is hypothesized that, in addition to career goals in specialty practice settings traditionally associated with assessment (e.g., neuropsychological and forensically related careers) and assessment-related training experiences (e.g., clinical hours and coursework in assessment), self-reported competence will demonstrate incremental utility in predicting intended career involvement in assessment. We expect that both self-reported and performance-based assessment competency will predict intended involvement. Although professional's estimations of their own competence and objective ratings of competence tend to be only marginally related if at all (e.g., Davis et al., 2006), self-reported competence has been associated with clinical psychologists' engagement in continuing education and other professional development activities (Bradley et al., 2012). As such, we would expect self-reported competence to contribute to career-long engagement with assessment competency and practice, and be weakly related with performance-based competency. Most notably, we expect self-reported competence to be the most predictive of intentions to engage in assessment activities as part of one's career. Second, we evaluate how supervision and training experiences differ between those of high and low degrees of assessment competency (both self-reported and performance-based). We hypothesize that high levels of self-reported and performance-based competence will play a significant role in trainees' perceptions of and engagement in training experiences and intended use of assessments.

2 | METHODS

2.1 | Participants

Survey invitations were sent to training director(s) (TD) at APA-accredited HSP programs that include substantive training in Clinical or Counseling psychology (including those listed as having combined-type programs). Programs were considered for inclusion if they were located within the United States and listed as accredited on the APA website in January of 2019 (APA, 2018). Program survey invitations requested that TDs forward a recruitment e-mail to all currently enrolled students. Participants were provided with an opportunity to win one of one-hundred $25.00 gift cards to Amazon. Our final sample (n = 414; see Table 1) of trainee respondents (PhD = 64%; PsyD = 35.3%) were on average of 27.8 years old (SD = 3.5) and identified

TABLE 1 Sample demographics

	M (SE)	*n*	%
Race			
White		431	82.4
Black		20	4.8
Latino(a)		8	1.9
Asian		21	5.1
Biracial/multiracial		16	3.9
Other		8	1.9
Ethnicity			
Hispanic		30	7.2
Gender			
Female		330	79.7
Male		80	19.3
Age	27.8 (3.5)		
Year in program	3.4 (1.5)		
1st year		43	10.4
2nd year		89	21.5
3rd year		83	20
4th year		90	21.7
5th year or beyond		62	15
On internship		47	11.4
Program type			
Clinical		322	77.8
Counseling		73	17.6
Combined		19	4.6

Note: The final sample (N = 414) includes a select portion of participants from the total sample that fully completed the performance-based measures.

as female (79.5%) and White (82.4%). Most trainees were enrolled in a Clinical training program (77.8%) rather than Counseling (17.6%) or a combined type (4.6%) program (see Ingram et al., 2020,[1] for additional information on participants within this study).

2.2 | Survey instrument

The survey (see specific components below) gathered demographic and training program characteristics of individuals enrolled in clinical and counseling HSP doctoral programs. We gathered information on coursework, practicum/clinical exposure, supervision, intended use of psychological assessments in their future career, employment setting interest, and competence with specific assessments (both self-reported and performance-based). For greater detail on specific patterns of training exposure to individual assessments; see Ingram et al. (2020). Descriptive statistics of the variables of interest are reported in Tables 2 and 3.

2.2.1 | Assessment use in clinical settings

This composite variable depicts the number of assessments trainees had used in clinical practice (e.g., practicum or internship, with clients). These assessments broadly covered the most frequent cognitive (Weschler Adult Intelligence Scale - Third and Fourth Edition [WAIS-III, WAIS-IV], Weschler Intelligence Scale for Children - Fourth and Fifth Edition [WISC-IV, WISC-V], Woodcock–Johnson IV, Differential Abilities Scales - Second Edition [DAS-2], Stanford Binet-5, Weschler Preschool and Primary Scale of Intelligence - Fourth Edition [WPPSI-IV], and Weschler Abbreviated Scale of Intelligence - Second Edition [WASI-2]), personality (Minnesota Multiphasic Personality Inventories [MMPI-2, MMPI-2-RF, MMPI-I, MMPI-A-RF], Personality Assessment Inventory [PAI], Millon CLinical Multiaxial Inventory - Third and Fourth Editions [MCMI-III, MCMI-IV], Rorschach [Exner, RPAS, or other], and TAT), and neuropsychological (Delis-Kaplan Executive Function System [D-KEFS], Weschler Memory Scale - Fourth Edition [WMS-IV], Repeatable Battery for the Assessment of Neuropsychological Status [RBANS], California Verbal Learning Test - Second Edition [CVLT-2], NEPSY-II, and Neuropsychological Assessment Battery [NAB]) assessments. Included within our study are several of the most widely used child assessments, most extensively in IQ (e.g., WISC-V, SB-5, WJ, WPPSI) but were also referenced in other areas (e.g., K-CPT in computerized attention tasks, MMPI-A-RF in personality, Rorschach in personality, scholastic achievement tests). Likewise, our measures selected mirror the scores used in broad psychology training surveys in assessment (e.g., Mihura et al., 2017; Ready & Veague, 2014). The measures used within the IQ section are also those which are historically most widely used within child and school settings (Benson et al., 2019). Additionally, trainees reported their exposure to other tests frequently incorporated into psychological assessments (brief symptom inventories, symptom validity tests, performance validity tests, computerized attention tasks, scholastic achievement tests, diagnostic interviews, mental status examinations). These assessments were chosen based on their wide coverage across HSP training programs.

2.2.2 | Graduate coursework in assessment

Trainees indicated areas of assessment in which they had formal graduate training, including cognitive, objective personality, projective personality, neuropsychological, child, school-based, forensic, and developmental disabilities.

TABLE 2 Model 1—Hierarchical regression predicting trainees' intention to incorporate psychological assessment into their careers.

Predictors	*B*	SE	*β*	95% CI	
				LL	*UL*
Model 1					
Constant	81.25	17.12			
Demographics					
Black	−8.93	5.4	−0.06	−19.56	1.70
Asian	3.05	5.4	0.02	−7.57	13.68
Biracial	−2.50	6.39	−0.01	−14.93	10.21
Hispanic	−7.44	5.53	−0.05	−18.31	3.43
Female	1.4	2.3	0.02	−3.31	6.11
Age	−0.34	.38	−0.04	−1.10	0.40
Employment					
Federal/state prison	12.49	3.74	0.14[a]	5.12	19.86
Veteran affairs	1.49	2.66	0.02	−3.76	6.74
Community mental health	−0.34	2.68	−0.00	−5.62	4.93
Psychiatric hospital	6.80	2.75	0.11	1.38	12.22
Private/group practice	2.40	2.58	0.04	−2.68	7.49
Academic-research	−8.49	3.04	−0.13[a]	−14.48	−2.50
Academic-teaching	−2.25	2.84	−0.03	−7.85	3.34
Medical hospital	−0.10	2.76	−0.00	−5.54	5.33
Neuropsychology practice	25.35	3.19	0.35[a]	19.66	31.64
Residential mental/substance use	1.56	3.45	0.02	−5.22	8.35
Academic medical center	6.78	2.83	0.12	1.21	12.35
University counseling center	−2.88	3.13	−0.04	−9.05	3.28
Clinical experiences					
Clinical use of measures	0.23	0.30	0.04	−0.37	0.83
Graduate assessment coursework	−1.40	0.90	−0.07	−3.19	
Total assessment hours	0.01	0.01	0.04	−0.01	0.03
Total therapy hours	−0.02	0.00	−0.26[a]	−0.03	−0.01
Total integrated reports	0.27	0.08	0.19[a]	0.09	0.44
Graduate school characteristics					
Balance of training	−0.21	0.07	−0.13[a]	−0.36	−0.05
Semesters of practicum	0.14	0.66	0.02	−1.16	1.44
Year in training	−0.11	1.70	−0.01	−3.46	3.24

[a]Meets family-wise Bonferroni corrected *p* values. *N* = 393 after removal of outliers.

TABLE 3 Model 2—Hierarchical regression predicting trainees' intention to incorporate psychological assessment into their careers.

Predictors	*B*	SE	*β*	95% CI *LL*	95% CI *UL*
Model 2					
Constant	50.06	17.99			
Demographics					
Black	−8.46	5.27	−0.06	−18.83	1.90
Asian	2.65	5.30	0.02	−7.77	13.08
Biracial	−1.18	6.24	−0.01	−13.46	11.08
Hispanic	−7.58	5.40	−0.05	−18.21	3.04
Female	2.00	2.34	0.03	−2.60	6.61
Age	−0.25	.37	−0.03	−0.99	0.48
Employment					
Federal/state prison	13.81	3.66	0.16[a]	6.61	21.01
veteran affairs	1.70	2.60	0.02	−3.42	6.82
Community mental health	−0.84	2.62	−0.01	−6.00	4.03
Psychiatric hospital	5.54	2.69	0.08	0.24	10.85
Private/group practice	2.39	2.51	0.04	−2.55	7.34
Academic-research	−8.04	2.97	−0.12	−13.89	−2.19
Academic-teaching	−2.80	2.77	−0.04	−8.26	2.65
Medical hospital	0.13	2.68	0.00	−5.16	5.43
Neuropsychology practice	25.41	3.11	0.35[a]	19.29	31.54
Residential mental/substance use	1.66	3.36	0.02	−4.95	8.27
Academic medical center	7.52	2.76	0.12	2.08	12.95
University counseling center	−2.85	3.05	0.04	−8.86	3.14
Clinical experiences					
Clinical use of measures	−0.21	0.31	−0.04	−0.83	0.40
Graduate assessment coursework	−1.67	0.89	−0.08	−3.42	0.07
Total assessment hours	0.00	0.01	0.01	−0.02	0.02
Total therapy hours	−0.02	0.00	−0.24[a]	−0.03	−0.01
Total integrated reports	0.24	0.08	0.17[a]	0.07	0.41
Graduate school characteristics					
Balance of training	−0.21	0.07	−0.13[a]	−0.36	−0.06
Semesters of practicum	0.05	0.64	0.00	−0.121	1.32
Year in training	0.56	1.67	0.03	−2.73	3.86

(Continues)

TABLE 3 (Continued)

Predictors	*B*	SE	*β*	95% CI *LL*	95% CI *UL*
Competency					
Performance-based competency	0.07	0.03	0.08	0.00	0.14
Self-reported competency	0.36	0.08	0.18[a]	0.19	0.53

[a]Meets family-wise Bonferroni corrected *p* values. *N* = 393 after removal of outliers.

2.2.3 | Therapy and assessment hours

Trainees indicated the hours of face-to-face contact they had accrued through either therapy or assessment of clients during their doctoral training.

2.2.4 | Integrated reports

Trainees estimated the number of integrated psychological reports they had written thus far in training. Consistent with the APPIC definition, a report includes a clinical interview, a review of a client's history or records, and at least two psychological tests from one or more of the following categories: personality tests, cognitive tests, and neuropsychological tests. This definition was supplied as part of the question.

2.2.5 | Employment setting interest

Trainees were asked to endorse employment settings they would consider after completion of their doctoral degree. They were able to endorse all settings for which they had a potential career interest.

2.2.6 | Balance of training

With a goal of assessing their educational program's position within the Scientist-Practitioner spectrum, trainees rated the balance of training in their program on a scale of 0–100 (0 = "Practice focused" and 100 = "Research focused).

2.2.7 | Semesters of practicum

Trainees indicated how many semesters of clinical practice or practicum they have completed at the doctoral or internship level, including the current semester.

2.2.8 | Year in program

Trainees indicated the number of years they were into their doctoral training (i.e., 1st, 2nd, 3rd, 4th, and 5th year or beyond, or on internship).

2.2.9 | Supervision satisfaction

Trainees indicated how satisfied they were on a scale of 0 (extremely satisfied) to 100 (extremely dissatisfied) with the supervision they received in writing psychological assessment reports.

2.2.10 | Supervision efficacy

Trainees indicated their belief that their supervision experience in writing psychological assessment reports has prepared them to accurately communicate test results on a scale of 0 (low belief) to 100 (high belief).

2.2.11 | Self-reported competency

Self-reported competency was gathered for each instrument on which a trainee indicated that they had received doctoral training. These values were then averaged across all assessments for which training had occurred for each participant, resulting a continuous metric of self-reported competency.

2.2.12 | Performance-based competency

Performance-based competency was measured using a continuous composite index created after evaluating knowledge and skills associated with the two most widely utilized assessments in training and professional practice settings (i.e., the MMPI-2 for personality assessment and the WAIS-IV for cognitive assessment; Ingram et al., 2020; Mihura et al., 2017; Wright et al., 2016). Trainees' scores across items were summed and standardized to create a composite index used as a measure of an individual's performance-based competency on commonly used assessments.

Knowledge based items for each of these assessments covered basic concepts related to core scale use (e.g., "Which test on the WAIS-IV can be substituted to derive the Working Memory Index?" and "VRIN is calculated by…"), basic assessment ethics (e.g., "If you mistakenly ignore a discontinue rule and later discover that additional items were administered unnecessarily, you should _____?" and "Assume a profile has one over-reporting validity scale suggesting invalidity because its score is above the suggested cut-score and the remaining over-reporting validity scales below suggested cut-scores. You should conclude which of the following?"), or score interpretation (e.g., "A Full-Scale IQ of 75 could best be described as:" and "What T-score is associated with an MMPI-2/MMPI-2-RF clinical elevation?"). All questions were multiple choice. Skill-based items involved the presentation of basic score profiles (Scale Scores for the Index and Subtest scores on the WAIS-IV and the Validity and Clinical scales on the MMPI-2) and a series of multiple-choice or true–false interpretive questions (e.g., "Which of the index scores likely does not represent a unitary construct?" on the WAIS-IV and "Is this profile valid?" on the MMPI-2). As with self-reported competency, trainees were presented with the WAIS-IV and MMPI-2 performance questions only if they had received doctoral training in use.

2.3 | Intention to use

Trainees reported on a scale of 0 (never) to 100 (very often) of how often they expect to regularly use formal assessments in their planned career/postgraduation, which is the continuous dependent variable of the regression analyses.

2.4 | Analytic plan

To address research question one, hierarchical linear regression analyses were conducted to predict trainees' intention to engage in assessment and identify differences in training and supervision experiences across domains of competence. Participants were excluded listwise if they did not complete performance-based questions. Assumptions of multiple linear regression were met after removing 21 participants (5% of the full sample) with significant Mahalanobis distance values that exceeded a probability estimate of $p < 0.001$ (Tabachnick & Fidell, 2013). When these 21 outliers were included, our results did not differ. Demographic variables (e.g., age, race/ethnicity, sex) were not predictive of the outcome variable and did not significantly change the regression model findings. Two regression models were analyzed using family-wise Bonferroni corrected significance. The first model included predictors drawn from three domains: (1) endorsement in employment interest for 12 settings ($p = 0.05/12$; 0.004); (2) graduate clinical experiences (instrument use in clinical settings, graduate courses in assessment, total therapy hours, total assessment hours, total integrated reports, semesters of practicum; $p = 0.05/6$; 0.008); and (3) graduate school characteristics (balance of training, year in program; $p = 0.05/2$; 0.025). The second model incorporated self-reported and performance-based competency variables as additional predictors.

To address research question two, independent *t*-tests contrasted individuals across levels of self-reported and performance-based competence on variables of supervision and assessment training experiences. These supervision and assessment experiences were compared between those with high (top 25%) and low (bottom 25%) self-reported and performance-based competency using independent-samples *t*-tests and a Bonferroni-corrected significance value ($p = 0.05/7$; 0.007). Effect sizes are reported based on benchmarks by Cohen (1988), with small ($d = 0.2$), medium ($d = 0.5$), and large ($d = 0.8$) used to reference the effect of a coefficient.

3 | RESULTS

3.1 | Predictors of intention to use

A hierarchical regression (Table 2) predicted trainees' intention to incorporate psychological assessment into their careers. Model 1 (i.e., employment interests, graduate clinical experiences, and school characteristics) accounted for 44% of the variance in intention to engage in assessment, $F(26, 366) = 10.91$, $p < 0.001$, with a large effect size ($f^2 = 0.79$). In general, intended employment was the best predictor of career assessment intention. Specifically, neuropsychology practice setting ($\beta = 0.35$), federal/state prison setting ($\beta = 0.14$), and academic research setting ($\beta = -0.13$) were meaningfully predictive of a trainee's career intention with psychological assessment. Few training and graduate school elements produced independent meaningful relationships, including total therapy hours ($\beta = -0.26$), integrated reports ($\beta = 0.19$), and research emphasis in training ($\beta = -0.13$).

Results from Model 2 (Table 3) indicate that the inclusion of competency metrics are incremental in predicting intention to utilize assessments, $F(2, 364) = 11.07$, $R^2\Delta = 0.03$, $p < 0.001$, $f^2 = 0.88$ with 47% of variance explained. Inclusion of competence metrics result in a small effect increase ($f^2 = 0.05$) beyond the domains in Model 1, with self-reported competence comparable to the significant variables in Model 1. All variables that were significant in Model 1 remained significant except for academic research settings. Self-reported competence was strongly and significantly associated with intention to use ($\beta = 0.18$). Performance-based competence ($\beta = 0.08$) was nonsignificant. These results indicate an incremental influence of self-reported competence on a student's intention to use assessments when other training components are considered.[2] Self-reported and performance-based competence are weakly related, $r = 0.18$.

To assess if interest in working in assessment-focused employment settings may bias overall intention to use assessment in a trainee's career, we excluded trainees who endorsed interest in working in employment settings that are more likely to engage utilize assessments in every-day work (e.g., federal/state prisons, psychiatric

hospitals, and neuropsychological practice). In this new sample ($N = 194$), Model 1 (i.e., employment interests excluding correctional, psychiatric hospital, and neuropsychological settings, graduate clinical experience, and school characteristics) accounted for 33.2% of the variation in intention to engage in assessment, $F(17, 177) = 5.16$, $p < 0.001$. The only significant predictor meeting Bonferroni correction was total therapy hours ($\beta = -0.28$, $p = 0.006$). Model 2 indicates that inclusion of competency metrics are still incremental in predicting intention to utilize assessments, even among trainees who have less interest in assessment-focused career settings, $F\Delta(2, 175) = 6.18$, $R^2\Delta = 0.04$, $p = 0.003$, with 37.6% of variance explained. As before, self-reported competency was strongly and significantly associated with intention to engage in assessments ($\beta = 0.23$, $p = 0.001$), whereas performance-based competence was not significant ($\beta = 0.06$, $p = 0.29$). Thus, self-reported competence has an incremental influence for trainees with less interest in assessment-focused career settings with respect to their intention to engage in assessment use in their future careers.

3.2 | Supervision and training differences across competency levels

For self-reported competency ratings (Table 3), significant differences were found across trainees' amount of graduate assessment coursework (high > low; *medium effect*), instrument use (high > low; *large effect*), belief in the efficacy of their supervision experiences (high > low; *large effect*), accrued assessment hours (high > low; *medium effect*), and intention to use assessments (high > low; *large effect*). There were comparable differences across performance-based competency ratings (Table 2), with differing effect sizes for trainees' belief in the efficacy of their supervision experiences (high > low; *small effect*) and intention to use assessments (high > low; *medium effect*). In short, medium to large effects were most evident across self-reported competence, compared to medium effect sizes across performance-based competence.

4 | DISCUSSION

This study evaluated self-reported and performance-based competency in psychological assessment as it pertains to a trainees' intention to regularly engage in assessment during their careers. While research has consistently demonstrated that trainees are insufficiently prepared for capstone duties expected for their level of training (i.e., trainees have insufficient competence; Ready et al., 2016; Stedman et al., 2001), research has not evaluated how trainee's competency contributes to their professional practice goals. Developing long-term professional practice goals is a critical step not only for trainees, but also for designing effective educational approaches to guide competent psychological assessment practice. Thus, understanding factors that shape decisions to engage in this domain of competence are needed, and must include evaluations of self-reported and actual competency as distinct constructs. The findings from this study have four distinct and important themes which warrant additional consideration: (a) students' intention to utilize assessments in their future careers is incrementally predicted by self-reported competence, (b) self-reported competency plays a larger role than performance-based competency when assessing trainees' career intentions, (c) graduate training and practice experiences in assessment were insignificant predictors of trainees' intentions after accounting for the other predictors within the model and, (d) self-reported and performance-based competence influences trainees' perception of and engagement in training experiences.

Intending to conduct assessment during one's career is largely predicted by trainees' desired employment setting, specifically those that specialize or emphasize the use of assessment (e.g., neuropsychological and correctional settings), and training factors that employ the use of assessment (i.e., integrated reports). However, the role of self-reported competence is critical. Specifically, self-reported competence was as meaningful a predictor of ones prospective assessment-related goals similar to factors that are commonly accepted as being key influences, such as the way they are trained (Child & Eyde, 2002; Youngstrom, 2013). In fact, self-reported competence was only surpassed in its predictive

power by seeking employment in a neuropsychology practice and total therapy hours. These results highlight how this subjective and understudied predictor could potentially be just as important for understanding intended assessment practice as objective training characteristics that are taken for granted as areas of interest for educational initiatives (e.g., number of integrated reports). Thus, while a program's emphasis on developing core competencies in assessment through coursework and clinical practicum is important to training, those experiences are unlikely to alter a trainee's professional identity as it relates to career-long assessment engagement. Rather, trainees' perception of their competence most often equals or outweighs other factors when predicting their intended engagement in this area of professional practice and thus warrants equal if not additional attention.

4.1 | Expanding the assessment training framework

Competency-based educational models (e.g., Kaslow, 2004; Kaslow et al., 2004, 2006) are integral to the current paradigm of outcome focused training in professional psychology. As a result, programs and internships are designed intentionally to evaluate and amass evidence that trainees meet benchmark standards as part of accreditation processes (APA, 2016). Guidelines developed by the APA Board of Educational Affairs (2020) identified the role of seven domains necessary for effective heath service psychology training in psychological assessment (Wright et al., 2020). These guidelines highlight coverage of theory, psychological assessment process, psychometrics, tests and methods, ethics, legal issues, and professionalism, diversity, and supervision as areas that should be a focus for successful training. While training in these domains undoubtably relate to the performance-based competency benchmarks (e.g., Rodolfa et al., 2013), promotion of psychological testing as an aspect of HSP identity appears to require an additional distinct core domain. Courses should, of course, continue to cover the traditional performance-based training domains of knowledge and assessment skills (Kaslow et al., 2018) in a manner that is evidence-based and developmentally sequenced (APA, 2017). However, psychology training programs wishing to promote engagement in psychological practice will benefit from explicit attention paid to trainee self-efficacy. Thus, we suggest that education guidelines for psychological assessment formally incorporate domain-specific self-efficacy as an area of recommended evaluation.

Such a recommendation is consistent with recent calls for a hybrid competency–capability assessment training framework (Kaslow & Egan, 2017; Kaslow et al., 2018), and the necessity of continued growth for the competency movement within psychology more broadly (Fouad & Grus, 2014; Rubin et al., 2007). The development of capability (e.g., the instillment of confidence and personal responsibility for learning and practice; Stephenson, 1994; O'Reilly et al., 1999) is critical to training in psychological assessment. Capability is inclusive of self-efficacy and, while we may produce competent psychologists using our existing framework, without establishing capable psychologists we are unlikely to promote assessment as an enduring component of identity (Benjamin, 2005). Thus, poor training outcomes in assessment (Cook et al., 2017) may relate not just to the quality or quantity of educational opportunities and experiences, but also to trainee perceptions about their capacity.

Moreover, as demonstrated in this study, self-reported competence is weakly related to performance-based competence outcomes. Consistent with other work on competency, the relationship between self-evaluated competence and performance-based competence is minimal (Davis et al., 2006; Eva et al., 2004). As such, focus on self-awareness and self-knowledge in competency development (Kaslow et al., 2018) would benefit from ensuring trainee perceptions of their competency align with benchmarked progression. Standardized, performance-based benchmarks may also be helpful to guide these conversations (Ingram et al., 2020).

To cultivate a new alignment between performance-based and self-reported measures of benchmark assessment competencies, effective communication within a training culture will be critical (Johnson et al., 2014; Shen-Miller et al., 2015), as will training supervisors in how to approach these conversations effectively (Campbell, 2006; Scott et al., 2000). Importantly, those with high self-reported and performance competence had greater beliefs about the efficacy of their supervision experiences. This pattern was much greater for self-reported

competence. Thus, engaging students in highly valued and supportive training (e.g., high rapport in supervision) are likely critical to developing and fostering students' self-efficacy which, in turn, impacts willingness to engage in long-term career practice of psychological assessment. This finding is also critical for training programs as adjustments are made following the effects of the COVID-19 pandemic (Casline et al., 2021; Palitsky et al., 2022; Patel et al., 2021), highlighting the need for supervisory experiences to meet the needs of trainees dependent upon modality of assessment experiences (i.e., virtual assessments). Thus, explicit focus on supervision components unique to assessment (Schneider et al., 2004; Wright, 2019) may assist trainer and, in turn, trainee competency.

Graduate training can work to foster assessment capability through the kinds of activities programs prioritized during assessment training. Trainees with high assessment competence (both self-reported and performance-based) reported significantly more hands-on instrument use than their peers with lower assessment competencies. This pattern of findings suggests that efforts to foster assessment competence may be shaped by coursework and practicum training. Further, these efforts should also consider the shift towards remote administration of psychological assessments following the impact of the COVID-19 pandemic and bolstering trainees' competency across multiple avenues of assessment administration (e.g., in-person, virtual/remote; Casline et al., 2021; Palitsky et al., 2022; Patel et al., 2021). Thus, efforts to increase exposure and training with assessments may result in greater competence and career engagement. While the aforementioned training components seem to be promising targets for increasing trainee assessment capability, implementing and evaluating these efforts cannot be done without modifying existing training frameworks. Indeed, research generally suggests that traditionally defined assessment competence, which stems from knowledge and skills obtained during graduate coursework and clinical practicum, does not contribute meaningfully to perceptions of professional competence in practicing psychologists (Neimeyer et al., 2012). Given this, establishing a trainee's capability must be a distinct educational objective with measurable efforts to address it.

5 | CONCLUSION

The “half-life” of professional psychological knowledge is diminishing because of the evolving nature of the field and its specialties (Neimeyer et al., 2012, 2014). Assessments instruments are, for instance, being updated with increasing frequency (e.g., MMPI was released in 1943, MMPI-2 in 1989, MMPI-2-RF in 2008, MMPI-3 in 2020). Knowledge and skills related to basic administration and interpretation of testing data are also instrumental for early developmental training benchmarks in HSP. Those same domains of training focus (see Wright et al., 2020) are unlikely to translate into broader and long-term practice of assessment as a component of professional identity without an expanded vision of training scope (i.e., capability, and in particular, self-reported competence and sense of efficacy; Kaslow et al., 2018). Education that overly focuses on performance outcomes typically emphasized in competence models may lose sight of other pedagogical components (Belar, 2009), such as capability (Stephenson, 1994). As a result, such education may not instill the necessary commitment to lifelong learning critical to ongoing competence (Kaslow et al., 2018; Rubin et al., 2007) and effective supervision (Krishnamurthy & Yalof, 2010).

Insufficiently developed capability has clear impacts on professional identity development. However, it is unclear how often (or how) training programs target developing this component of professional identity effectively as self-efficacy and self-reported competence are not a focus of training pedagogy. As models of assessment training continue to evolve with the goal of establishing ever-more competent psychologists, researchers and instructors must critically evaluate their educational practices. These practices must promote both competency benchmark attainment, and a sense of competence that ushers in the attitudes and values associated with long-term ethical and competent practice.

Several limitations should also be acknowledged. Trainees were recruited from only clinical and counseling health psychology programs and did not include those from school psychology programs. This limits the generalization of the findings and does not account for the totality of training experiences in all APA-accredited HSP programs, which necessitates further consideration of assessment competency in school psychology programs. Further, as data were

collected pre-COVID, implications of remote administration/virtual assessment competency was not evaluated and outside of the scope of the study, thus conclusions about this burgeoning area of psychological assessment cannot be evaluated. While not exhaustive, of all measures observed in school-based settings, or for child-based assessment, our coverage provides some insight into these populations consistent with historic practice and training surveys. Future research delving more into these populations is warranted given that a smaller portion of our respondents reported being explicitly trained in school (14%) or child (40%) assessment and the contextual uniqueness of these populations. Trainees' self-reported competence was rated relative to peers and not professional readiness. It also represents a broad and general sense of competency, as it was calculated by averaging self-reported competence across all trained assessments. Performance-based competence was limited to knowledge of only the two assessments used most commonly across HSP programs and specialties within clinical practice (i.e., the MMPI-2 and the WAIS-IV; Wright et al., 2017). Although a trainees intention to engage in assessment will be dependent upon their preferred areas of concentration (e.g., adult vs. child), limiting their work to specific assessment areas (e.g., child-based assessment), the selected measures (MMPI-2 and WAIS-IV) are widely utilized in HSP training and considered foundational to their competency in assessment training (Benson et al., 2019; Ingram et al., 2020; Mihura et al., 2017; Ready & Veague, 2014). Additionally, the recruitment method utilized in this study resulted in a self-selected sample of trainees who were willing to report on their assessment-related training and competence and were willing to complete the performance-based assessment task. This may have resulted in a sample for whom assessment was especially salient relative to those who did not opt to participate in the study. These limitations notwithstanding, our study offers a novel approach to evaluating training components and their impact on career development of psychologists and emphasizes the need of continued discussion about how HSP training can, and should, incorporate both competency and capacity.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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ENDNOTES

[1] Sample sizes of participants will vary between these two reports as the sample in Ingram et al. (2020) was only reporting participants who self-reported use of assessments, whereas the current sample required self-report and completion of assessment administration questions in the survey.

[2] In addition to the analyses provided in text, exploration analyses were also undertaken to evaluate differences across domains of assessment (e.g., personality, cognitive, neuropsychological). Regressions were repeated by breaking the self-reported competency variable into domains of assessment competence, each which produced insignificant or negligible effects. Thus, intention to utilize assessments is better conceptualized by a trainee's overall perception of their assessment competence rather than domain specific competence. Regression analyses were also split by a trainee's year in their doctoral program (e.g., early training [years 1–3] and late training [years 4–6], as a function of sample size availability for comparable groups). These analyses resulted in similar patterns of effects, demonstrating that factors which predict the intention to engage in psychological assessment during a career are consistent across a trainee's stage of training.

REFERENCES

American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education. (2014). Standards for educational and psychological testing. American Educational Research Association.

American Psychological Association. (2016). Standards for accreditation for health service psychology. American Psychological Association. https://www.apa.org/ed/accreditation/about/policies/standards-of-accreditation.pdf

American Psychological Association (APA). (2017). *Standards of accreditation for programs in health service psychology*.

American Psychological Association (APA). (2018). *Accredited doctoral programs for training in health service psychology:2018*. https://www.apa.org/ed/accreditation/programs/doctoral.pdf

American Psychological Association Board of Educational Affairs. (2020). *Guidelines for education and training in psychological assessment in health service psychology*. https://www.apa.org/about/policy/guidelines-assessment-health-service.pdf

Belar, C. D. (2009). Advancing the culture of competence. *Training and Education in Professional Psychology*, *3*(4, Suppl), S63–S65. https://doi.org/10.1037/a0017541

Benjamin, L. T., Jr.(2005). A history of clinical psychology as a profession in America (and a glimpse at its future. *Annual review of clinical psychology*, *1*, 1–30. https://doi.org/10.1146/annurev.clinpsy.1.102803.143758

Benson, N. F., Floyd, R. G., Kranzler, J. H., Eckert, T. L., Fefer, S. A., & Morgan, G. B. (2019). Test use and assessment practices of school psychologists in the United States: Findings from the 2017 National Survey. *Journal of School Psychology*, *72*, 29–48. https://doi.org/10.1016/j.jsp.2018.12.004

Bradley, S., Drapeau, M., & DeStefano, J. (2012). The relationship between continuing education and perceived competence, professional support, and professional value among clinical psychologists. *Journal of Continuing Education in the Health Professions*, *32*, 31–38. https://doi.org/10.1002/chp.21120

Callahan, J. L. (2015). Evidence-based technical skills training in pre-practicum psychological assessment. *Training and Education in Professional Psychology*, *9*, 21–27. https://doi.org/10.1037/tep0000061

Campbell, J. (2006). *Essentials of clinical supervision*. Wiley.

Casline, E., Tawfik, S. H., Brodar, K. E., Patel, Z. S., & Tarlow, N. (2021). Considerations for assessment training competencies in health service psychology programs in the age of COVID-19. *Training and Education in Professional Psychology*, *15*, 267–275. https://doi.org/10.1037/tep0000360

Childs, R. A., & Eyde, L. D. (2002). Assessment training in clinical psychology doctoral programs: What should we teach? What do we teach? *Journal of Personality Assessment*, *78*, 130–144. https://doi.org/10.1207/S15327752JPA7801_08

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Routledge Academic.

Cook, J. R., Hausman, E. M., Jensen-Doss, A., & Hawley, K. M. (2017). Assessment practices of child clinicians: Results from a national survey. *Assessment*, *24*, 210–221. https://doi.org/10.1177/1073191115604353

Cox, D. R. (2010). Board certification in professional psychology: Promoting competency and consumer protection. *The Clinical Neuropsychologist*, *24*, 493–505. https://doi.org/10.1080/13854040902802947

Cox, D. R., Cox, R., & Caplan, B. (2013). *Specialty competencies in rehabilitation psychology*. Oxford University Press.

Danzi, B. A., Tawfik, S. H., Ringle, V. A. M., & Saez-Flores, E. (2020). Enhancing profession-wide competencies in supervision and assessment: An evaluation of a peer mentorship approach. *Training and Education in Professional Psychology*, *3*, 176–184. https://doi.org/10.1037/tep0000256

Davis, D. A., Mazmanian, P. E., Fordis, M., Harrison, R. V., Thorpe, K. E., & Perrier, L. (2006). Accuracy of physician self-assessment compared with observed measures of competence: A systematic review. *Journal of the American Medical Association*, *296*, 1094–1102. https://doi.org/10.1001/jama.296.9.1094

Eva, K. W., Cunnington, J. P. W., Reiter, H. I., Keane, D. R., & Norman, G. R. (2004). How can I know what I don't know? Poor self assessment in a well-defined domain. *Advances in Health Sciences Education*, *9*, 211–224. https://doi.org/10.1023/B:AHSE.0000038209.65714.d4

Fouad, N. A., & Grus, C. L. (2014). Competency-based education and training in professional psychology. In N. Kaslow, & B. Johnson (Eds.), *Oxford handbook of education and training in professional psychology*. Oxford University Press.

Fouad, N. A., Hatcher, R. L., Hutchings, P. S., Collins, F. L. Jr., Grus, C. L., Kaslow, N. J., Madson, M. B., & Crossman, R. E. (2009). Competency benchmarks: A model for understanding and measuring competence in professional psychology across training levels. *Training and Education in Professional Psychology*, *3*, 5–26. https://doi.org/10.1037/a0015832

Ingram, P. B., Bergquist, B. K., Currin, J. M., & Schmidt, A. T. (2021). Applicant factors contributing to interview selection, ranking determination, and judgement of "fit" among health service psychology internship training programs. *Journal of Clinical Psychology*, *77*, 2491-2506. https://doi.org/10.1002/jclp.23194

Ingram, P. B., Schmidt, A. T., Bergquist, B., & Currin, J. M. (2020). Education, instrument exposure, and competence in psychological assessment: A national survey of practices and beliefs of health service psychology trainees. *Training and Education in Professional Psychology*, *16*(1), 10–19. https://doi.org/10.1037/tep0000348

Iwanicki, S., & Peterson, C. (2017). An exploratory study examining current assessment supervisory practices in professional psychology. *Journal of Personality Assessment*, *99*, 165–174. https://doi.org/10.1080/00223891.2016.1228068

Johnson, W. B., Barnett, J. E., Elman, N. S., Forrest, L., Schwartz-Mette, R., & Kaslow, N. J. (2014). Preparing trainees for lifelong competence: Creating a communitarian training culture. *Training and Education in Professional Psychology*, *8*, 211–220. https://doi.org/10.1037/tep0000048

Kaslow, N. J. (2004). Competencies in professional psychology. *American Psychologist*, *59*, 774–781. https://doi.org/10.1037/0003-066X.59.8.774

Kaslow, N. J., Borden, K. A., Collins, F. L., Forrest, L., Illfelder-Kaye, J., & Nelson, P. D. (2004). Competencies conference: Future directions in education and credentialing in professional psychology. *Journal of Clinical Psychology*, *80*, 699–712. https://doi.org/10.1002/jclp.20016

Kaslow, N. J., & Egan, G. J. (2017). A competency-focused commentary on the special section on teaching, training, and supervision in personality and psychological assessment. *Journal of Personality Assessment*, *99*, 189–191. https://doi.org/10.1080/00223891.2016.1226177

Kaslow, N. J., Finklea, J. T., & Chan, G. (2018). Personality assessment: A competency-capability perspective. *Journal of Personality Assessment*, *100*, 176–185. https://doi.org/10.1080/00223891.2017.1381970

Kaslow, N. J., Rubin, N. J., Leigh, I. W., Portnoy, S., Lichtenberg, J., Smith, I. L., Bebeau, M., & Nelson, P. D. (2006). *American psychological association task force on the assessment of competence in professional psychology*. American Psychological Association.

Krishnamurthy, R., Vandecreek, L., Kaslow, N. J., Tazeau, Y. N., Milville, M. L., & Kerns, R. (2004). Achieving competency in psychological assessment: Directions for education and training. *Journal of Clinical Psychology*, *80*, 725–740. https://doi.org/10.1002/jclp.20010

Krishnamurthy, R., & Yalof, J. A. (2010). The assessment competency. In M. B. Kenkel, & R. L. Peterson (Eds.), *Competency-based education for professional psychology* (pp. 87–104). American Psychological Association. https://doi.org/10.1037/12068-005

Mihura, J. L., Roy, M., & Graceffo, R. A. (2017). Psychological assessment training in clinical psychology doctoral programs. *Journal of Personality Assessment*, *99*, 153–164. https://doi.org/10.1080/00223891.2016.1201978

Neimeyer, G. J., Taylor, J. M., & Cox, D. R. (2012). On hope and possibility: Does continuing professional development contribute to ongoing professional competence? *Professional Psychology: Research and Practice*, *43*, 476–486. https://doi.org/10.1037/a0029613

Neimeyer, G. J., Taylor, J. M., Rozensky, R. H., & Cox, D. R. (2014). The diminishing durability of knowledge in professional psychology: A second look at specializations. *Professional Psychology: Research and Practice*, *45*, 92-98. https://doi.org/10.1037/a0036176

Neimeyer, G. J., Taylor, J. M., & Rozensky, R. H. (2012). The diminishing durability of knowledge in professional psychology: A Delphi Poll of specialties and proficiencies. *Professional Psychology: Research and Practice*, *43*, 364–371. https://doi.org/10.1037/a0028698

O'Reilly, D., Cunningham, L., & Lester, S. (Eds.). (1999). *Developing the capable practitioner: Professional capability through higher education*. Kogan Page.

Palitsky, R., Kaplan, D. M., Brodt, M. A., Anderson, M. R., Athey, A., Coffino, J. A., Egbert, A., Hallowell, E. S., Han, G. T., Hartmann, M. A., Herbitter, C., Herrera Legon, M., Hughes, C. D., Jao, N. C., Kassel, M. T., Le, T. A. P., Levin-Aspenson, H. F., López, G., Maroney, M. R., … Stevenson, B. (2022). Systemic challenges in health service psychology internship training: A call to action from trainee stakeholders. *Clinical Psychological Sciences*, 1-27. https://doi.org/10.1177/21677026211072232

Patel, Z. S., Tarlow, N., & Tawfik, S. H. (2021). Assessment supervision during COVID-19 and beyond: Trainee perspectives on the supervision of teleassessment. *Training and Education in Professional Psychology*, *15*, 276–283. https://doi.org/10.1037/tep0000342

Rabin, L. A., Barr, W. B., & Burton, L. A. (2005). Assessment practices of clinical neuropsychologists in the United States and Canada: A survey of INS, NAN, and APA Division 40 members. *Archives of Clinical Neuropsychology*, *20*, 33-65. https://doi.org/10.1016/j.acn.2004.02.005

Ready, R. E., Santorelli, G. D., Lundquist, T. S., & Romano, F. M. (2016). Psychology internship directors' perceptions of pre-internship training preparation in assessment. *North American Journal of Psychology*, *18*, 317.

Ready, R. E., & Veague, H. B. (2014). Training in psychological assessment: Current practices of clinical psychology programs. *Professional Psychology: Research and Practice*, *45*, 278–282. https://doi.org/10.1037/a0037439

Roberts, M. C., Borden, K. A., Christiansen, M. D., & Lopez, S. J. (2005). Fostering a culture shift: Assessment of competence in the education and careers of professional psychologists. *Professional Psychology: Research and Practice*, *36*, 355–361. https://doi.org/10.1037/0735-7028.36.4.355

Rodolfa, E., Greenberg, S., Hunsley, J., Smith-Zoeller, M., Cox, D., & Sammons, M. T. (2013). A competency model for the practice of psychology. *Training and Education in Professional Psychology*, *7*, 71–83. https://doi.org/10.1037/a0032415

Rodolfa, E. R., Bent, R. J., Eisman, E., Nelson, P. D., Rehm, L., & Ritchie, P. (2005). A cube model for competency development: Implications for psychology educators and regulators. *Professional Psychology: Research and Practice*, *36*, 347–354. https://doi.org/10.1037/0735-7028.36.4.347

Rubin, N. J., Leigh, I. W., Nelson, P. D., Smith, I. L., Bebeau, M., Lichtenberg, J. W., Portnoy, S., & Kaslow, N. J. (2007). The competency movement within psychology: An historical perspective. *Professional Psychology: Research and Practice*, *38*, 452–462. https://doi.org/10.1037/0735-7028.38.5.452

Schneider, W. J., Lichtenberger, E. O., Mather, N., & Kaufman, N. L. (2004). *Essentials of assessment report writing* (2nd ed.). Wiley.

Scott, K. J., Ingram, K. M., Vitanza, S. A., & Smith, N. G. (2000). Training in supervision: A survey of current practices. *The Counseling Psychologist*, *28*, 403–422. https://doi.org/10.1177/0011000000283007

Shen-Miller, D. S., Schwartz-Mette, R., Van Sickle, K. S., Jacobs, S. C., Grus, C. L., Hunter, E. A., & Forrest, L. (2015). Professional competence problems in training: A qualitative investigation of trainee perspectives. *Training and Education in Professional Psychology*, *9*, 161–169. https://doi.org/10.1037/tep0000072

Smith, J. D. (2017). Introduction to the special section on teaching, training, and supervision in personality and psychological assessment. *Journal of Personality Assessment*, *99*, 113–116. https://doi.org/10.1080/00223891.2016.1217873

Stedman, J. M., Hatch, J. P., & Schoenfeld, L. S. (2001). The current status of psychological assessment training in graduate and professional schools. *Journal of Personality Assessment*, *77*, 398–407. https://doi.org/10.1207/S15327752JPA7703_02

Stephenson, J. (1994). Capability and competence: Are they the same and does it matter? *Capability*, *1*, 3–5.

Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (6th ed.). Pearson.

Varela, J. G., & Conroy, M. A. (2012). Professional competencies in forensic psychology. *Professional Psychology: Research and Practice*, *43*, 410–421. https://doi.org/10.1037/a0026776

Wolfe-Christensen, C., & Callahan, J. L. (2008). Current state of standardization adherence: A reflection of competency in psychological assessment. *Training and Education in Professional Psychology*, *2*, 111–116. https://doi.org/10.1037/1931-3918.2.2.111

Wright, A. J. (2019). *Essentials of psychological assessment supervision* (1st ed.). Wiley.

Wright, A. J., Chávez, L., Edelstein, B. A., Grus, C. L., Krishnamurthy, R., Lieb, R., Mihura, J. L., Pincus, A. L., & Wilson, M. (2020). Education and training guidelines for psychological assessment in health service psychology. *American Psychologist*, *76*(5), 794–801. https://doi.org/10.1037/amp0000742

Wright, C. V., Beattie, S. G., Galper, D. I., Church, A. S., Bufka, L. F., Brabender, V. M., & Smith, B. L. (2016). Assessment practices of professional psychologists: Results of a national survey. *Professional Psychology: Research and Practice*, *48*, 73–78. https://doi.org/10.1047/pro000008

Youngstrom, E. A. (2013). Future directions in psychological assessment: Combining evidence-based medicine innovations with psychology's historical strengths to enhance utility. *Journal of Clinical Child & Adolescent Psychology*, *42*, 139-159. https://doi.org/10.1080/15374416.2012.736358

Zuckerman, S. E., Weisberg, R. B., Silberborgen, A. K., & Topor, D. R. (2020). A national survey on didactic curricula in psychology internship training programs. *Training and Education in Professional Psychology*, *14*, 193–199. https://doi.org/10.1037/tep0000279

SUPPORTING INFORMATION

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