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Preliminary Validation of a Tool To Assess Competencies for Professional Geropsychology Practice

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Psychologists will need to develop increased competencies for Geropsychology practice to serve the behavioral and mental health care needs of an aging population. The Council of Professional Geropsychology Training Programs (CoPGTP) developed the Pikes Peak Geropsychology Knowledge and Skill Assessment Tool to help psychologists and geropsychology trainees evaluate professional geropsychology competencies and related training needs. In this study, geropsychologists and geropsychology trainees were asked to complete the competency tool to evaluate its psychometric properties and to assess

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users' perceptions of its utility. The sample ($N = 109$) consisted of 75 professionals and 34 graduate students who completed the tool through an online survey. Results provide preliminary support for use of the tool as a self-evaluation instrument for psychologists and graduate students who want to identify areas of continuing professional development in geropsychology. As expected, psychologists rated themselves as having more advanced geropsychology competencies than did graduate students, $F(5, 96) = 27.18$, $p < .01$. For psychologists, overall self-rated competency was predicted by extent of formal clinical training and proportion of one's practice devoted to older adults, but not by years in practice or informal training. For graduate trainees, overall self-rated competency was predicted by formal clinical training experiences but not by coursework or clinical hours. Participants provided generally positive feedback about the tool's utility. Results suggest that formal clinical training is a critical contributor to self-perceived geropsychology competence. Innovative models of continuing professional development will be important to help psychologists develop competence for professional geropsychology practice.

Keywords: geropsychology, competencies, continuing professional development

The aim of this article is to present preliminary psychometric data in regard to the Pikes Peak Geropsychology Knowledge and Skill Assessment Tool (Pikes Peak tool). This tool was developed by the Council of Professional Geropsychology Training Programs (CoPGTP), for psychologists to evaluate their competencies, and thus their learning needs, for practice with older adults (Karel, Emery, Molinari, & CoPGTP Task Force on the Assessment of Geropsychology Competencies, 2010). The Pikes Peak tool is designed to be used as a self-study aide by professional psychologists who are working with older adults across a range of clinical settings to identify areas for growth. The tool is also intended to be used by trainees and their supervisors to help evaluate a student's progress over the course of a training experience. We provide background and rationale for development of this evaluation tool; describe a study that provides preliminary data in support of the utility and validity of the tool for self-study purposes among geropsychologists and geropsychology trainees; and suggest strategies for using this tool to inform continuing education activities.

Background

Aging Population and Psychological Practice With Older Adults

The Baby Boomers began turning 65 in 2011. By 2030, one in five Americans will be aged 65 years old or older. The proportion of the U.S. population aged 65 and older was 13% in 2010 and will rise to 19% by 2030. As the Baby Boomers continue to age, the "oldest-old" group, those aged 85 and over, will continue to grow in the decades ahead, from a projected 2.3% of the population in 2030 to 4.3% in 2050. Mirroring population trends in general, older adults will increasingly be composed of non-White ethnic minorities (Vincent & Velkoff, 2010). With increasing rates of chronic illness and dementia into late life and related mental health concerns, the growing older adult population will have expanding needs for behavioral and mental health services (Karel, Gatz, & Smyer, in press).

The health care workforce is not prepared to meet the health and mental health care needs of the aging population (Institute of Medicine, 2008) as it is not growing at rates necessary to meet expanding health care needs. There are significant projected shortages in professionals with geriatric expertise (e.g., geriatricians, geriatric nurses, geriatric social workers, geriatric psychiatrists). Psychology is no exception, in terms of both training relatively few specialists and providing limited exposure to aging issues in generalist training. The 2008 American Psychological Association (APA) Survey of Psychology Health Service Providers found that 39% of psychologist respondents reported providing at least some service to older adults (65+) during the most recent typical week of practice. However, only 4.2% of respondents identified geropsychology as an area of current focus and work. On average, 8.5% of psychologist health service provider time was spent with older adults (Michalski, Mulvey, & Kohout, 2010). A 2002 survey of APA members found that fewer than 20% of psychologists had received formal training in geropsychology, whether through coursework or supervised practicum; almost 60% desired more training in the field (Qualls, Segal, Norman, Niederehe, & Gallagher-Thompson, 2002).

There are some promising trends in professional psychology, however, in addressing the needs of an aging population. Aging issues have been increasingly recognized and highlighted by the APA; the Office on Aging was established in 1998, which oversees the APA Committee on Aging and makes available a tremendous number of geropsychology practice and training resources at its website (http://www.apa.org/pi/aging/). APA published Guidelines for Psychological Practice with Older Adults (American Psychological Association, 2004). In 1998, the Commission for the Recognition of Specialties and Proficiencies in Professional Psychology (CRSPPP) recognized geropsychology as a proficiency area of practice; in 2010, professional geropsychology was recognized by APA as a specialty.

In contrast to the relatively few trained geropsychologists, there are increasing numbers of generalist psychologists who see older adults in their particular areas of practice. To provide adequate care to their clients, nonspecialists need to be able to recognize their areas of competence in working with older adults and identify their areas of inexperience. They will need to seek additional training and consultation and develop referral networks of professional colleagues such as physicians, psychiatrists, social workers, and other professionals who have geriatric expertise. In response to these needs, geropsychology faces the dual challenge of encouraging psychological practice with older adults while also providing adequate opportunities for training to ensure competent delivery of psychological services to older adults.

A Competency-Based Training Model for Professional Geropsychology

The Pikes Peak Model for Training in Professional Geropsychology delineates attitude, knowledge, and skill competencies for geropsychology practice, and it makes recommendations for training at graduate, internship, postdoctoral, and postlicensure levels (Hinrichsen, Zeiss, Karel, & Molinari, 2010; Karel, Knight, Duffy, Hinrichsen, & Zeiss, 2010; Knight, Karel, Hinrichsen, Qualls, & Duffy, 2009; Qualls, Scogin, Zweig, & Whitbourne, 2010). The delineation of geropsychology competencies was informed by the broader competency movement in education and training within professional psychology (Rubin et al., 2007), including the framework of foundational and functional competencies undergirding the "Cube Model" for competency development (Rodolfa et al., 2005).

The Pikes Peak geropsychology competencies are organized into three areas: attitudes, knowledge, and skills. Awareness of attitudes and beliefs about aging, and appreciation of diversity among older adults are critical for competent geropsychology practice. The knowledge base to inform geropsychology practice includes general knowledge about adult development and aging, foundations of clinical practice with older adults, and foundational knowledge in regard to geropsychology assessment, intervention, and consultation. Skill competencies are organized around foundational competencies relevant to geropsychology practice (e.g., ethical–legal issues, team functioning) and functional competencies in geropsychology assessment, intervention, and consultation. The competencies are aspirational in nature and intended to guide entry-level specialized practice (Knight et al., 2009; Molinari, 2011).

The core elements of training to develop professional geropsychology competencies include didactic experience to provide knowledge of normal versus illness-related aging experiences; opportunities to grapple with distinct ethical and legal issues in geropsychology practice; interprofessional team experience; supervised clinical experience with older adults across a range of care settings; and facilitated experiences to promote self-awareness in regard to personal responses to aging and the diverse life backgrounds and experiences of older adults (Knight et al., 2009). The Pikes Peak model acknowledges that there are multiple pathways to professional geropsychology competence, including a combination of formal graduate, internship, postdoctoral fellowship, and postlicensure training and professional development (Hinrichsen et al., 2010; Karel, Knight, et al., 2010; Qualls et al., 2002).

Developing the Pikes Peak Geropsychology Knowledge and Skill Assessment Tool

Formed in 2007, CoPGTP includes as members graduate, internship, postdoctoral fellowship, and postlicensure training programs that strive to provide geropsychology training consistent with the Pikes Peak model recommendations. One of the early needs identified by this new training council was to have a tool to evaluate development of geropsychology competencies in trainees. The CoPGTP Geropsychology Competency Evaluation Task Force was established and developed a tool that we view as useful for both evaluation by supervisors as well as for self-evaluation by trainees and professionals. Consistent with the development of the competency benchmarks document for professional psychology training more broadly (Fouad et al., 2009), we operationalized the 50 Pikes Peak knowledge and skill competencies with detailed behavioral anchors to help inform the evaluation and training process (Karel, Emery, et al., 2010). Of note, an acknowledged limitation of the tool is that it does not attempt to evaluate attitudes, an area that presents significant measurement issues which are not readily accommodated with the format of the present tool (Nelson, 2005).

In developing the tool for possible self-evaluation purposes, we were aware that people find it difficult to assess their own abilities with accuracy (Dunning, Heath, & Suls, 2004). Further, we noted that the emerging culture of competence within professional psychology calls on psychologists to consider maintaining and gaining professional competence in the context of lifelong learning. Ideally, continuing professional development activities, including formal continuing education, are based on reflection of a psychologist's ongoing professional learning needs (Wise et al., 2010). Our goal, therefore, was to develop a tool with detailed behavioral anchors of each competency to help trainees and psychologists review thoughtfully their competencies at varying levels of training.

The competency tool includes 50 items that reflect nine knowledge and skill domains, each with three to seven behavioral indicators of the particular competency. Each item on the competency tool is rated on a developmental rating scale adapted from Hatcher and Lassiter's (2007) practicum competencies model. The anchors range from "Novice" (*possesses entry-level skills; needs intensive supervision*) to "Expert" (*serves as resource or consultant to others*). The scale can be used across levels of training, and it is intended to assess development of competency over time. The competency tool's introduction lists behavioral anchors for each of these competency developmental levels and provides a case vignette to give a concrete example of how an individual at each level of development might approach the case.

For example, one of the foundational skill competencies for geropsychology practice is to be able to address cultural and individual diversity among older adults. This competency was assessed by asking whether the psychologist is able to (a) recognize gender, age, cohort, ethnic–racial, cultural, linguistic, socioeconomic, religious, disability, sexual orientation, gender identity, and urban–rural residence variations in the aging process; (b) articulate integrative conceptualizations of multiple aspects of diversity that influences older clients, psychologists, and systems of care; (c) adapt professional behavior in a culturally sensitive manner, as appropriate to the needs of the older client; (d) work effectively with diverse providers, staff, and students in care settings that serve older adults; (e) demonstrate self-awareness and ability to recognize differences between the clinician's and the patient's values, attitudes, assumptions, hopes and fears related to aging, caregiving, illness, disability, social supports, medical care, dying, grief; (f) initiate consultation with appropriate sources as needed to address specific diversity issues. With those behavioral indicators as a guideline, the psychologist or trainee would then rate him/herself as novice, intermediate, advanced, proficient, or expert in this competency area. The tool can be found at the CoPGTP website (http://www.copgtp.org).

Preliminary Evaluation Study

In this study, geropsychologists and geropsychology trainees were asked to complete the full competency tool to evaluate the tool's psychometric properties and to assess perceptions of its utility. This study had three primary aims. First, we aimed to examine reliability and validity of the tool. We expected to find strong internal consistency of items within competency domains and higher mean ratings for psychologists than for trainees. Second, we sought to examine correlates of self-rated competence. In particular, we expected that within groups of psychologists and trainees there would be a positive correlation between extent of practical experience and formal training in geropsychology and competency ratings. Third, we sought to evaluate perceived strengths and weaknesses of the tool. Although we believed that participants would find the tool to be useful, we were concerned that the tool's length might lead participants to question its utility.

Method

Institutional oversight. The study was approved by the Institutional Review Board at the University of Colorado at Colorado Springs (UCCS) and by the Research and Development Committee at VA Boston Health care System.

Participant recruitment. Psychologists, postdoctoral fellows, and graduate trainees, including psychology interns, were invited to participate in an online survey. E-mail invitations were sent to the electronic listservs of psychology organizations known to include psychologists and trainees with geropsychology practice experience: CoPGTP, APA Division 12, Section 2 (Society of Clinical Geropsychology), Divisions 20 (Adult Development and Aging), 42 (Psychologists in Independent Practice) Aging Interest Group, 17 (Counseling Psychology), 40 (Clinical Neuropsychology), 38 (Health Psychology), 22 (Rehabilitation Psychology), and Psychologists in Long-Term Care (PLTC). We cast a wide net in this recruitment effort, acknowledging that many members of the neuropsychology, health psychology, and rehabilitation psychology groups might not have a particular interest in geropsychology and that members of all organizations might not be practitioners. The e-mail invitation stated,

> If you are a psychologist (or postdoctoral psychology fellow) who provides direct clinical care, consultation, and/or supervision of care to older adults as part of your professional practice, or a graduate student who has had geropsychology training at graduate school or internship levels, we invite your participation in this survey.

We conducted the initial recruitment in May through July 2009; a follow-up request for participation was sent in October 2009. A statement of informed consent, including information in regard to the study's purpose, risks and benefits, voluntary nature of participation, and contact information for the investigators and the IRB at UCCS preceded the survey. Completion of the survey was considered to reflect informed consent.

Measures. A series of items assessed basic demographic information (gender, age, ethnicity). Doctoral level psychologists completed questions on educational background including degree, year of degree, field of psychology, licensure status, and years licensed. They were given a checklist that included up to12 possible training experiences, including graduate coursework in geropsychology, practicum placement, internship rotation, clinical fellowship, continuing education workshops, on-the-job training, and research training. Respondents were then asked to estimate the percentage of time in professional activities, ranging from assessment to consultation, the proportion of clinical practice to work with children, adults, and older adults, and the settings in which they provided geropsychological services. Summed scores were then created from the number of geropsychology training experiences within three categories: formal clinical training (practicum, internship, fellowship), research training (graduate and postdoctoral), and informal clinical training, which included continuing education workshops, on-the-job training, and informal experience.

Trainees were asked about progress toward graduate degree and field of psychology and extent of geropsychology training available through their graduate program. They rated their exposure to geropsychology in graduate coursework, research, practicum, internship rotation, and specialized internship along with the settings in which this exposure occurred and hours of supervised clinical service working with older adults. A summed formal training experience score was computed, consisting of responses to the three areas of geropsychology practicum, internship rotation, and specialized internship.

Participants were then asked to complete the online tool, which consisted of 50 items organized into nine competency domains: (a) general knowledge about adult development, aging, and the older adult population; (b) foundations of professional geropsychology practice—knowledge; (c) foundations—skills; (d) assessment—knowledge; (e) assessment—skills; (f) intervention—knowledge; (g) intervention—skills; (h) consultation—knowledge; and (i) consultation—skills. For foundations, assessment, intervention, and consultation, the knowledge and skill scores were combined, to create a total of five scales for the major competency domains. The overall geropsychology competency total is obtained by averaging the ratings for all 50 items.

In the last section of the survey, participants rated the utility of the tool and estimated the length of time it took them to complete the assessment. The ratings consisted of a 1- to 5-point Likert rating scale in regard to how helpful the tool was for specifying strengths and area of growth; how useful the developmental rating scale was; how likely they would be to recommend the tool to others; and how likely they would be to use the tool to evaluate students. Participants were then invited to provide additional feedback in an open-ended format, as follows: "We would appreciate any feedback you have about the usefulness, understandability, feasibility of the evaluation tool, including any recommendations you have for clarifying or improving the tool. Please provide any comments here."

Results

Sample. 109 participants completed the online survey: 75 doctoral level psychologists (including postdoctoral fellows) and 34 trainees (see Table 1).

Self-rated competencies. The mean scores for psychologists and trainees on the nine rating scales are shown in Table 2. Mean subscale scores ranged from 3.48 to 3.99 (*advanced* to *proficient* range) for psychologists and from 1.86 to 2.51 (*novice* to *intermediate* range) for trainees. Psychologists rated themselves from intermediate to expert (only rare use of *novice* rating). Trainees, on almost all items, rated themselves as novice to proficient, although

Table 1
Sample Description

Variable	Psychologists[a] *N* (%)	Trainees[b] *N* (%)
Gender		
Female	49 (67.1)	27 (79.4)
Male	24 (32.9)	7 (20.6)
Age	*M* = 47.22 years (*SD* = 10.86)	*M* = 30.57 years (*SD* = 4.10)
Race		
Asian	4 (5.3)	4 (11.8)
Black/African American	1 (1.3)	5 (14.7)
Hispanic/Spanish	1 (1.3)	1 (2.9)
Caucasian	68 (90.7)	24(70.6)
Other	1 (1.3)	0 (0)
Degree (or anticipated degree)		
PhD	60 (80)	28 (82.4)
PsyD	15 (20)	6 (17.6)
Subfield		
Clinical	54 (72.0)	29 (85.3)
Counseling	15 (20)	5 (14.7)
Clinical neuropsychology	11 (14.7)	3 (8.8)
Health	4 (5.3)	0
Developmental	3 (4.0)	0
Other	4 (5.2)	0
("aging, cognitive, community")		
Licensure		
Yes	67 (89.3)	—
No	8 (10.7)	—
Setting of work or training (*N*; %)		
Private practice	27 (36)	3 (8.8)
Outpatient mental health clinic	28 (37.3)	20 (58.8)
Outpatient medical setting	25 (33.3)	14 (41.2)
Inpatient medical setting	31 (41.3)	14 (41.2)
Psychiatric hospital	9 (12)	7 (20.6)
Nursing home	37 (49.3)	15 (44.1)
Assisted living facility	17 (22.7)	8 (23.5%)
Home based care	27 (36)	12 (35.3)
Community setting	6 (8)	8 (23.5)
Other ("Veterans Affairs Hospital, Retirement home")	0	2 (5.8)
Training Experiences		
Graduate gero research	31 (41.3)	25 (73.5)
Graduate gero coursework	46 (61.3)	23 (67.6)
Geropsychology practicum	41 (54.7)	26 (76.5)
Geropsychology internship rotation	47 (62.7)	4 (11.8)
Geropsychology internship	22 (29.3)	3 (8.8)
Geropsychology research postdoc	10 (13.3)	—
Geropsychology clinical postdoc	23 (30.7)	—
On-the-job training	52 (69.3)	—
CE workshops	48 (64)	—
Informal training	30 (40)	—
Other	16 (21.3)	6 (17.6)
Organizational Membership		
APA	55 (73.3)	27 (79.4)
APA Div 12, Section 2	28 (37.3)	12 (35.3)
APA Div 20	21 (28.0)	10 (29.4)
APA Div 17	1 (1.3)	3 (8.8)
APA Div 22	6 (8.0)	0 (0.0)
APA Div 38	6 (8.0)	4 (11.8)
APA Div 40	11 (14.7)	2 (5.9)
APA Div 42	6 (8.0)	0 (0.)
PLTC	20 (26.7)	7 (20.6)
CoPGTP	8 (10.7)	0 (0.0)

Note. Percentages do not add up to 100 because participants had the option of indicating more than one category for most variables. CE = continuing education; APA = American Psychological Association; PLTC = Psychologists in Long-Term Care; CoPGTP = Council of Professional Geropsychology Training Programs.
[a] (*N* = 75). [b] (*N* = 34).

Table 2
Means (Standard Deviations) of Geropsychology Competency Subscale Scores

Variable	Psychologists	Trainees	Total sample
Total competency score	3.74 (.70)	2.17 (.53)	3.21 (.98)
General aging knowledge	3.78 (.72)	2.51 (.64)	3.38 (.90)
Foundations	3.84 (.70)	2.32 (.50)	3.35 (.96)
Knowledge	3.84 (.77)	2.24 (.62)	3.33 (1.04)
Skills	3.84 (.68)	2.38 (.46)	3.36 (.92)
Assessment	3.97 (.79)	2.25 (.56)	3.42 (1.08)
Knowledge	3.92 (.93)	2.33 (.54)	3.42 (1.11)
Skills	3.99 (.77)	2.21 (61)	3.43 (1.10)
Intervention	3.75 (.74)	2.07 (.63)	3.20 (1.06)
Knowledge	3.74 (.78)	2.07 (.62)	3.20 (1.10)
Skills	3.76 (.76)	2.07 (.70)	3.22 (1.10)
Consultation	3.49 (.82)	1.87 (.62)	2.97 (1.07)
Knowledge	3.48 (.84)	1.91 (.64)	2.99 (1.10)
Skills	3.51 (.83)	1.86 (.63)	2.98 (1.09)

use of the *proficient* rating was infrequent and *expert* was used by only one trainee on one item. Each subscale had high internal consistency, indicated by Cronbach's alpha coefficients that ranged from .91 to .97. In subsequent analyses, the results are reported for total competency and the five overall scales (i.e., Aging Knowledge, Foundations, Assessment, Intervention, and Consultation).

A multivariate analysis of variance (MANOVA) that compared psychologists and graduate students on the five competency scale scores showed, as expected, significant differences across scales between the two groups, $F(5, 96) = 27.18$, $p < .01$, with psychologists ratings themselves higher than did trainees. Univariate analyses across all scales were significant. Table 3 shows the intercorrelations among the five main subscales for psychologists and trainees. Scores on the subscales are highly intercorrelated, ranging from .66 to .90 for psychologists, and from .47 to .89 for trainees.

To examine the relationships among professional and training experiences with overall competency scores, two separate linear regressions (for psychologists and trainees) were conducted. The overall competency score of psychologists was predicted by the extent of formal clinical training and proportion of practice devoted to older adults (see Table 4). Informal training did not predict overall competency nor did graduate coursework or research training. Time since doctoral degree did not predict self-rated competency scores. Work in nursing homes was related to self-perceived competency; nursing home practice maintained significance as a predictor in the multivariate regression analysis. For trainees, overall competency was predicted by formal clinical training experiences but not by coursework or clinical hours.

Table 3
Correlations Among Geropsychology Competency Subscale Scores in Psychologists and Trainees

Subscale	1	2	3	4	5
Psychologists					
1. Aging knowledge	—	.85**	.66**	.76**	.68**
2. Foundations	—	—	.82**	.90**	.79**
3. Assessment	—	—	—	.83**	.74**
4. Intervention	—	—	—	—	.85**
5. Consultation	—	—	—	—	—
Trainees					
1. Aging knowledge	—	.82**	.68**	.70**	.47**
2. Foundations	—	—	.82**	.89**	.76**
3. Assessment	—	—	—	.79**	.63**
4. Intervention	—	—	—	—	.86**
5. Consultation	—	—	—	—	—

Feedback on the tool's utility. Participants reported that they spent from 9 to 90 min to complete the survey, with an average of 27.7 min ($SD = 11.4$ min). Feedback on the tool was generally positive with 64.2% of the sample responding that the tool was *very* or *extremely* helpful in specifying strengths and areas for growth. Similarly, 67.9% of the sample found the developmental rating scale to be *very* or *extremely* useful. The majority (52.3%) stated they were *very* or *extremely* likely to recommend that other colleagues/programs use the tool and *very* or *extremely* likely to use the tool to help evaluate practice competencies of students they supervise (57.4%). There were no significant differences between psychologist and trainee mean scores in feedback scores. The 35 responses to open-ended questions inviting feedback about the evaluation tool were reviewed by three of the authors (MJK, SKW, YT) who identified four qualitatively derived themes: utility of the tool, length–detail of the tool, rating scale utility, and general recommendations.

Comments regarding the tool's utility included that it was "excellent," "comprehensive," and "helpful to identify areas of weakness." Several respondents suggested additional competencies to

Table 4
Predictors of Total Self-Rated Geropsychology Competency in Psychologists and Trainees

Predictor variables	*b*	SE b	β
Psychologists			
(Constant)	115.71	15.65	
Years since doctoral degree	0.944	0.50	.24
Clinical practice with OAs[a]	0.32	0.13	.29*
Formal clinical geropsychology training[b]	9.25	4.43	.30*
Informal geropsychology training[c]	5.45	4.04	.22
Research training[d]	14.29	7.06	.25
Graduate coursework	−6.93	8.92	−.10
Nursing home[e]	17.61	8.14	.25*
Trainees			
(Constant)	82.06	9.75	
Clinical training experiences[f]	24.27	6.89	.62**
Graduate coursework	7.48	8.43	.14
Supervised clinical hours[g]	−0.57	2.67	−.04

Note. For psychologists: $R^2 = .41$, $F(7, 54) = 5.25$, $p < .01$. For trainees, $R^2 = .38$, $F(3, 30 = 6.23$, $p < .01$.
[a] Proportion of clinical practice devoted to older adults. [b] Total number of formal clinical geropsychology training experiences (practicum, specialized internship, internship rotation, and clinical geropsychology postdoc). [c] Total number of informal training experiences (on-the-job training, CE courses, informal training). [d] Total number of research training opportunities (graduate geropsychology research, research postdoc). [e] "Significant service" reported being provided in nursing home settings. [f] Total number of clinical training experiences (geropsychology practicum, specialized internship, internship rotation). [g] Number of hours of supervised clinical service to older adults (0 = none yet, 1 = 1–50, 2 = 51–100, 3 = 101–200, 4 = 201–300, 5 = greater than 301).
* $p < .05$. ** $p < .01$.

add to the tool, and one respondent suggested that it would help to first identify areas of competence needed in a psychologist's practice and then evaluate only those competency domains. One respondent suggested that it would be very helpful if the tool could be designed to provide a summary of an individual's strengths and weaknesses, perhaps in a visual display. Many commented specifically on the length and detail of the tool, with responses split between concern for the tool being too long, wordy, complex, and/or redundant versus expressions that the tool's comprehensiveness was important and helpful. A few advised that the tool should be shortened to make it more feasible for use in the field.

Although participants generally found the developmental rating scale to be useful, several respondents shared a sense of discomfort or uncertainty about the scale anchors. In particular, several were not comfortable with the "expert" rating, admitting that perhaps they were "experts" in their local setting but they did not consider themselves "experts" on a national scale. A few also expressed concern that the term "novice" has negative connotations. Several expressed difficulty making distinctions between scale anchors (e.g., *proficient* vs. *expert*).

Discussion

The Pikes Peak geropsychology knowledge and skill assessment tool represents an effort to articulate reliably and with validity aspirational knowledge and skill competencies for geropsychology practice. It also provides a mechanism for formative and summative evaluations of geropsychology competence. This study provides preliminary evidence that the tool is reliable and valid for self-evaluation purposes by a modest sample of self-selected psychologists and trainees with geropsychology interest and experience.

As expected, doctoral-level psychologists rate themselves, on average, as having acquired higher levels of competencies than did trainees. Competency self-ratings are strongly related both within and across domains of geropsychology competence. The tool appears to capture a general level of self-perceived geropsychology competence. With such strong item and scale intercorrelations, the question arises as to whether the level of detail of this tool is needed. However, we argue that this level of detail is needed to provide detailed elaboration of the knowledge base and skill competencies that can be useful for those less familiar with geropsychology practice. Moreover, within geropsychology training programs, the tool helps to make distinctions among competencies, for use in training needs assessment and evaluation.

In examining predictors of self-perceived geropsychology competence, we found the extent of formal clinical training experience was a critical variable for both psychologists and trainees but that graduate coursework and research training or experience were not. Amount of practice experience (for psychologists, years since doctoral degree; for trainees, number of supervised hours with older adults) did not relate to self-perceived competence. For psychologists, the nature of clinical practice does appear related to competency self-ratings; those who spend a greater proportion of time serving older adult clients and those who work in nursing home settings rate themselves as having higher levels of geropsychology practice competencies. These results suggest that both formal clinical training and the opportunity to practice extensively with, and perhaps in specialized care settings for, older adults is important for developing geropsychology competence and perhaps consolidating one's identity as a geropsychologist.

Participant feedback on the tool's utility was generally positive. Some respondents stated clearly that it was too long but others stated that the detail was very helpful. At this point, we did not hear enough concern expressed about the tool's length to consider shortening it significantly; we believe the benefits of the tool's detail continue to outweigh the drawbacks. We were also interested in participants' experience with the developmental rating scale. The majority found the scale very useful; a few, in open-ended comments, suggested concern about "loaded" meanings of the terms *novice* and *expert*. Although we do not currently plan to change the scale anchors, we may add clarifying information to the tool's instructions to normalize use of these terms.

Future Directions and Implications

Psychology as a field must do a better job of providing needed mental and behavioral health services to older adults in our aging society. Most psychologists have not had opportunities for formal training in the field, yet increasing numbers of psychologists will be needed in the workforce to serve older adults competently. Not only are expanded opportunities for geropsychology training needed at all levels of training (undergraduate through postlicensure training) but also tools are needed to help psychologists interested to work with older adults identify their strengths as well as their continuing learning needs.

This preliminary study examined the utility and viability of the Pikes Peak geropsychology knowledge and skill assessment tool among geropsychologists and geropsychology trainees. An important next step is to examine the tool's use among psychologists who do not identify as geropsychologists but who may provide services to some older adults in the course of their professional practice. It will be important to explore whether the tool is understandable and helpful for psychologists who are less familiar with the field.

Certainly, the endeavor of rating one's own abilities is fraught with challenges. Metaknowledge and metacompetency, defined as "knowledge about knowledge. . .knowing what you know and what you don't know" (Hatcher & Lassiter, 2007), are themselves challenging competencies to develop. Metaknowledge depends in part on capacities for self-reflection and self-awareness, which might be facilitated in a structured self-assessment of competencies. It is our hope that the detailed tool may serve as one means for psychologists to examine their strengths, weaknesses, and needs for further training. Similarly, supervisors can support trainees to develop metacompetence by collaboratively using the tool in training settings, to help trainees identify their learning needs in the field as well as to help provide formative and summative evaluations of geropsychology competence development. Of note, CoPGTP has posted at its website a list of learning resources associated with each of the Pikes Peak competency domains.

The preliminary results of this study suggest that formal clinical training—as compared to continuing education classes or "on-the-job" or "informal" training—is a critical contributor to self-perceived geropsychology competence. This finding is consistent with the notion that didactic classroom or home-study continuing education activities often do not translate into improved practice or outcomes (Institute of Medicine, 2010). This reality is a challenge

for continuing professional development in all of the health professions, including psychology and, more specifically, geropsychology.

The geropsychology field is expanding opportunities for continuing education, through continuing education offerings at national meetings, local conferences, and online. However, there remain few options for more formal clinical training—for supervised clinical practice or case consultation—at the postlicensure level. The Pikes Peak training model recognizes the critical importance of postlicensure training in geropsychology and acknowledges that our ability to provide such training is not yet adequate (Karel, Knight, et al., 2010). Geropsychology as a field hopes to contribute to innovative models of continuing professional development in the years to come.

References

American Psychological Association. (2004). Guidelines for psychological practice with older adults. *American Psychologist, 59,* 236–260. doi:10.1037/0003-066X.59.4.236

Dunning, D., Heath, C., & Suls, J. M. (2004). Flawed self-assessment: Implications for health, education, and the workplace. *Psychological Science in the Public Interest, 5,* 69–106. doi:10.1111/j.1529-1006.2004.00018.x

Fouad, N. A., Grus, C. L., Hatcher, R. L., Kaslow, N. J., Hutchings, P. S., Madson, M. B., Collins, F. L., Jr., & 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,* S5–S26. doi:10.1037/a0015832

Hatcher, R. L., & Lassiter, K. D. (2007). Initial training in professional psychology: The practicum competencies outline. *Training and Education in Professional Psychology, 1,* 49–63. doi:10.1037/1931-3918.1.1.49

Hinrichsen, G. A., Zeiss, A. M., Karel, M. J., & Molinari, V. A. (2010). Competency-based geropsychology training in doctoral internships and postdoctoral fellowships. *Training and Education in Professional Psychology, 4,* 91–98. doi:10.1037/a0018149

Institute of Medicine. (2008). *Retooling for an aging America: Building the health care workforce.* Washington, DC: Author.

Institute of Medicine. (2010). *Redesigning continuing education in the health professions.* Washington, DC: Author.

Karel, M. J., Emery, E. E., Molinari, V., & CoPGTP Task Force on the Assessment of Geropsychology Competencies. (2010). Development of a tool to evaluate geropsychology knowledge and skill competencies. *International Psychogeriatrics, 22,* 886–896. doi:10.1017/S1041610209991736

Karel, M. J., Gatz, M., & Smyer, M. (in press). Aging and mental health in the decade ahead: What psychologists need to know. *American Psychologist.*

Karel, M. J., Knight, B. G., Duffy, M., Hinrichsen, G. A., & Zeiss, A. M. (2010). Attitude, knowledge, and skill competencies for practice in professional geropsychology: Implications for training and building a geropsychology workforce. *Training and Education in Professional Psychology, 4,* 75–84. doi:10.1037/a0018372

Knight, B. G., Karel, M. J., Hinrichsen, G. A., Qualls, S. H., & Duffy, M. (2009). Pikes Peak model for training in professional geropsychology. *American Psychologist, 64,* 205–214. doi:10.1037/a0015059

Michalski, D., Mulvey, T., & Kohout, J. (2010). *2008 APA survey of psychology health service providers. Unpublished special analysis for the APA Committee on Aging.* American Psychological Association Center for Workforce Studies.

Molinari, V. (Ed.). (2011). *Specialty competencies in geropsychology.* New York, NY: Oxford University Press.

Nelson, T. D. (2005). Ageism: Prejudice against our feared future self. *Journal of Social Issues, 61,* 207–221. doi:10.1111/j.1540-4560.2005.00402.x

Qualls, S. H., Scogin, F., Zweig, R., & Whitbourne, S. K. (2010). Predoctoral training models in professional geropsychology. *Training and Education in Professional Psychology, 4,* 85–90. doi:10.1037/a0018504

Qualls, S. H., Segal, D. L., Norman, S., Niederehe, G., & Gallagher-Thompson, D. (2002). Psychologists in practice with older adults: Current patterns, sources of training, and need for continuing education. *Professional Psychology: Research and Practice, 33,* 435–442. doi:10.1037/0735-7028.33.5.435

Rodolfa, E., Bent, R., Eisman, E., Nelson, P., 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. doi:10.1037/0735-7028.36.4.347

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

Vincent, G. K., & Velkoff, V. A. (2010). *The next four decades, The older adult population in the United States: 2010 to 2050.* Washington, DC: U.S. Census Bureau.

Wise, E. H., Sturm, C. A., Nutt, R. L., Rodolfa, E., Schaffer, J. B., & Webb, C. (2010). Life-long learning for psychologists: Current status and a vision for the future. *Professional Psychology: Research and Practice, 41,* 288–297. doi:10.1037/a0020424

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