School Psychologists Working with Native American Youth: Training, Competence, and Needs

Carol Robinson-Zañartu, Nola Butler-Byrd and Valerie Cook-Morales,
San Diego State University

Paul Dauphinais,
Turtle Mountain Schools, Belcourt, North Dakota

Elvina Charley,
Ganado Unified School District, Ganado, Arizona

Mike Bonner,
Omaha, Nebraska

Author Note
The authors gratefully acknowledge the contributions of Flora Howe, Anslem Yazzie, Eugene Honanie, Sally Baas, Cheryl Sanchez-Ostapchenko, and Marilyn Robinson in developing the pilot survey; David Shriberg for preliminary data analysis; and Lee Huff for his vision.

Despite growing emphases on multicultural competence, Native American youth remain tremendously underserved by schools: low achievement, high dropout rates, and over-identification for special education persist. The authors analyzed responses of 403 school psychologists to a national survey regarding their competence gained in training, in current practice, and that needed for effective work with Native Americans. Respondents reported significant under-preparation in training and inadequate preparation for competent practice. Both ethnicity and length of experience with the population yielded significant differences in perceived levels of competence.

KEYWORDS: Native American, American Indian, school psychology, multicultural, cultural competence.

Persistent problems in learner outcomes for Native American (NA) youth should compel us as school psychologists to examine our capacity to make a difference. NA achievement is significantly below that of "mainstream" children, dropout rates are unacceptably high, and over-identification for special education is actually on the rise (Faircloth & Tippeconnic, 2010; National Center for Education Statistics [NCES], 2008). Historically, NA children, their families, and even their cultures were blamed for problematic academic outcomes. Increased attention to multicultural competence, including use of systemic approaches in service delivery, was expected to positively impact such achievement gaps, helping school psychologists to more competently assess individual youth, and more effectively facilitate relevant systems changes, from school-based attitudes and expectations to culturally appropriate interventions.

Growing bodies of literature have established relationships between cross-cultural competence and effective outcomes for youth (Rogers & Lopez, 2002; Tarver Behring & Ingraham, 1998). However, despite mandates and resources to support multicultural competence, outcomes for Native youth suggest these efforts are insufficient. Sue (2001) cautioned that using widely inclusive parameters around multicultural training might lead to watered-down approaches, inadequate to address the needs of specific groups. Concerned with similar issues following a meta-analytic review of multicultural education, Smith,

---

Correspondence concerning this article should be addressed to Carol Robinson-Zañartu, Department of Counseling and School Psychology, San Diego State University, San Diego, CA 92128-1179, USA. E-mail: crobinsn@mail.sdsu.edu

Constantine, Dunn, Dinehart, and Montoya (2006) suggested the need for research regarding work with specific racial/ethnic groups. In light of this issue, this study proposed to examine school psychologists' preparedness to work competently with Native American youth.

THE STATUS OF NATIVE AMERICAN YOUTH

With a 20.6% increase in those under age 18 in one decade (U.S. Census, 2000), Native American (NA) youth represent one of our fastest growing populations. Although NA students reside in virtually every state, unless they are part of a large reservation community, many remain "invisible" to educators. Their percentages in most schools are low, and many carry surnames from histories of colonization that lead to misidentification. For instance, although the largest actual number of NAs in the U.S. live in California, where many have Spanish surnames, most schools enroll low percentages. Thus, NA issues are not differentiated, but subsumed under efforts to serve other "minorities."

The UCLA Civil Rights Project's most recent research on education statistics for Native youth (Faircloth & Tippeconnic, 2010) reports that NA graduation rates now range from 30% to 64%, and that on average, fewer than 50% of NA students from the Pacific and Northwest U.S. graduate high school. Achievement levels fall well below those of other students. At both grades 4 and 8, NA students had lower average scores in reading and mathematics than the average for all other students nationally (NCES 2008; Rampey, Lutkus & Weiner, 2006). Further, Native American youth remain over-represented in special education. The U.S. Department of Education (2003) reported that nationally, 11.9% of NA youth receive special education services. However, others dispute and differentiate these data. Reviewing 2005 national education statistics, Stancavage, Mitchell, Bandeira de Mello, Gaertner, Spain, and Rahal (2006) found that 17% of NA students in 4th grade, and 15% in 8th grade were classified as students with disabilities versus only 9% of non-NA students. They also found differences in identification patterns between "high density" and "low density" schools. Low-density schools (fewer than 25% NA youth) identified significantly more Native youth as having disabilities. This over-identification in low-density schools raises multiple hypotheses; for instance, might mainstream teaching styles be incompatible with indigenous learners; or might cultural inexperience limit school psychologists' skills in differentiating difference from disability.

MULTICULTURAL AND CULTURE-SPECIFIC COMPETENCE IN SCHOOL PSYCHOLOGY

Both the American Psychological Association (APA) (1990; 2003) and the National Association of School Psychologists (NASP, 2000) have provided guidelines requiring multicultural content in training. By the early 1990's, although some school psychology training programs had articulated multicultural training components, (c.f., Cook-Morales & Robinson-Zañartu, 1995; Palmer, Juarez & Hughes, 1991), 40% did not yet offer coursework or integrate culturally relevant content (Rogers, Ponterro, Conoley & Wiese, 1992). Two decades later, Rogers and Molina (2006) recognized only 11 psychology programs as highly successful in minority recruitment and retention, supported in part by culturally relevant content.

The APA School Psychology Division's Task Force on Cross-Cultural School Psychology Competencies developed a framework for cultural competence, summarizing existing knowledge bases, and defining competencies within six domains: (a) legal and ethical issues; (b) school culture, policy and advocacy; (c) psycho-educational assessment; (d) academic, therapeutic and consultative interventions; (e) working with interpreters; and (f) research (Rogers et al., 1999). Their generic multicultural guidelines were designed to prepare candidates to transfer cultural awareness and skills gained in training to specific cultural demands in practice. However, no data indicate whether practicing school psychologists do this.

Multiple scholars assert that specific knowledge of NA cultures, issues, and worldviews is critical to effective school-based work and research with this population (Cleary & Peacock, 1998; Deloria & Wildcat, 2001; Robinson-Zañartu, 1996). Specific suggestions fall into areas such as educational policy, history, intervention, educational programs, and research. The need for educators to understand such culturally specific information as, for example, local tribal histories, intergenerational effects of historical traumas on learning, the Indian Child Welfare Act, Title VII, the Johnson-O'Malley Act, tribal behavioral norms, taboos on discussing certain symbols, events, or stories, the role of extended family in a child's education,

tribal research protocols, and the skills to act respectfully with sovereign nations all are considered critical for effective educational practice.

Most scholars writing about work with NA youth have cultural familiarity or longevity of work within NA communities (e.g., Cleary & Peacock 1998; Klug & Whitfield, 2003). Most school psychologists do not bring these experiences to their practice. No data demonstrate what difference this makes in competence to practice with NAs. Thus, it becomes useful to determine whether the multicultural training school psychologists receive prepares them to work with NA populations, and for those working with Native youth, what influence that has on gaining sufficient additional competence. Further, given the differential special education identification rates in high and low density areas, does familiarity with the cultures, either through personal membership or longevity of work experience, influence levels of competence?

The research questions guiding this study explore the following issues in relation to six domains of culturally competent practice: (a) How do school psychologists rate their training, current competence, and need for competence in each of the six areas of practice in relation to serving NA youth? (b) Are there significant differences between perceived levels needed for effective practice and those received in training and current levels of practice? (c) Does length of time working with NA youth make a difference in perceived training, preparedness or perceived need in each domain? and (d) Do perceived level of preparedness, training or need for competence in the six domains vary with ethnicity?

METHOD

Participants

Two strata of participants were sought: the first represented school psychologists as a group nationally, randomly selecting from NASP's membership database; the second represented school psychologists working with greater numbers of NA youth. Because school psychologists may be unaware of serving Native youth, surveying the entire population was warranted. As NASP's membership is slightly over 20,000, we sought a sample size that would produce a 5% margin of error (*p*), yielding a 95% confidence level for a population size of 20,000 respondents (Isaac & Michael, 1981). The web-based survey was sent to a random sample of 2500 of NASP's members (Stratum 1), and for Stratum 2, to 51 school psychologists in postal codes with 25% or more NA population, and to 96 Bureau of Indian Affairs (BIA) psychologists. Two weeks following the initial request, a reminder was sent. Four hundred twenty-three responses were received, well beyond the minimum number needed to produce confidence in our results. Of those, 18 were removed from analysis due to not working in the field, and two due to missing data, yielding a sample size of 403, representing a 16% return rate.

Demographics of respondents. The distribution of respondents across ethnic categories broadly approximates that of NASP's membership, with the vast majority of the sample (82.8%) identifying as European American (EA). This compares with 92.6 % of NASP's membership who self-identify as Caucasian (J. Charvat, personal communication, November 2, 2008). Although the full over-sampling group was not separable from the total, those who worked in BIA/BIE schools were also predominantly Euro-Americans (72.5%). Overall, more NA or dual ethnicity including NAs responded to the survey (3.9%) than are represented in NASP (0.8%). The over-sampling procedure produced sufficient numbers of respondents who reported working with NA youth (28%) to inform the research questions without compromising the overall integrity of the sample.

Survey Design

Working from literature reviews of cultural competence in school psychology and competent educational or psychological practice with Native American youth, members of NASP's Native American Task Force designed a survey to determine school psychologists' perceptions of their competence gained during training, competence in practice, and levels of competence needed for effective practice. To determine areas of competence, they began with the six areas of culturally competent practice originally identified by the APA School Psychology Divisions' Task Force on Cultural Competence (Rogers et al., 1999) discussed above. Following a review of the literature on competence with Native American youth in education and psychology, members of the NASP Task Force developed a list of exemplars to describe

each category to reflect attention to Native American education issues. A focus group of Native American psychologists then validated or modified the exemplars in each of the categories. For example, understanding intergenerational effects of historical traumas on learning became an exemplar under the areas of school culture, policy and advocacy; knowledge of the Indian Child Welfare Act, Title VII, and the Johnson-O'Malley Act became exemplars under the area of legal and ethical issues; understanding tribal behavioral norms and taboos on discussions of certain symbols, events and stories were skill sets under academic, therapeutic and consultative interventions; and knowledge about tribal research protocols fell under the area of research. These modified areas of cultural competence became the six major subsets of the survey, establishing content validity through use of previously identified areas of competence, areas emerging from the literature, and experience of Native American psychologists in the focus group helping establish the survey questions.

An initial web-based survey was piloted by members of the NASP Task Force. Based on feedback from the pilot group and from NASP's research office, the survey was revised, mainly shortening the exemplar list. In the final 24-item survey, demographic data described respondents' gender and ethnicities, types of schools served, e.g., BIA, public, tribally controlled, and whether and how long respondents had worked with NA populations. Respondents were then asked to rate their levels of competence in training, in current practice, and the levels they perceived needed for effective practice with NAs in six major domains of culturally competent practice, drawn from those identified by Rogers et al. (1999). Descriptors were modified to reflect specific attention to NA issues (see Table 1), using a four-point Likert scale (0-3), rating competence as "none," "some," "adequate," or "strong."

Table 1 *Multicultural Competencies Framework for Survey*

Categories of Multicultural Competencies[1]	Extended Applications to Native American/American Indian (NA/AI) Children and Youth
Legal & Ethical Issues	Pertaining to NA/AI (knowledge, use and advocacy)(e.g., Indian Child Welfare Act, Title VII, Johnson-O'Malley Act)
School Culture, Educational Policy, & Institutional Advocacy	In serving NA/AI (e.g., examine referrals for cultural misinformation, implement systemic interventions; understand intergenerational effects of historical trauma)
Psychoeducational Assessment	With NA/AI (sufficient range of tools; consider language development, acculturation, historical trauma; tribal history)
Academic, Therapeutic, & Consultative Interventions	Using NA/AI specific knowledge and skills (e.g., cross-cultural or culture specific consultation or counseling; use culture in intervention design; understanding tribal behavioral norms and taboos on discussions of certain symbols, events and stories)
Working with Translators & Interpreters	In relation to work with NA/AI (e.g., using translators vs. interpreters; know relevant professional guidelines and policies; hire, train & work with interpreters or translators)
Research	With NA/AI populations (e.g., skills in eliminating bias; differentiate tribal specific & mainstream cultural behaviors; aware of/use tribal research protocols or review procedures; know/use indigenous research methodologies)

[1]Source: Rogers et al. (1999)

RESULTS

A wide range of group sizes yielded unequal variances between groups. Due to their robustness in these situations, as well as with non-normally distributed data, nonparametric statistics for ordinal data were used in analysis. Specifically, the Kruskal-Wallis test, an independent group comparison test of

sampled data, the Mann-Whitney U test for paired and independent samples, and Kolmogorov-Smirnov one sample tests were used, along with Bonferroni correction factors to correct for family-wise errors.

Comparisons of Competence from Training, Current Competence, and Competence Needed

Of the 403 total respondents, between 352 and 362 rated their levels of competence in training, current practice, and levels needed for effective school psychological service with NA youth in each of the six practice areas. Table 2 presents the results of Kolmogorov-Smirnov one sample tests and correlations. It addresses research questions a and b regarding how school psychologists rate their training, current competence, and perceived need for competence in each area of practice in relation to serving NA youth, and whether significant differences between those ratings exist.

Table 2 *Kolmogorov-Smirnov One Sample Nonparametric Tests for Differences Between Training, Current Knowledge and Level of Competence Needed Reported by School Psychologists*

Area of Competence	Measure	*n*	Mean (SD)	*z*
Legal-Ethical	Training	360	.72 (.84)	5.270*
	Current	359	.94 (.81)	5.391*
	Needed	356	1.90 (.89)	4.328*
School Culture, etc.	Training	359	.72 (.84)	5.503*
	Current	360	.91 (.86)	4.805*
	Needed	356	1.85 (.91)	4.484*
Psychoed. Assessment	Training	358	.85 (.88)	4.767*
	Current	356	1.07 (.92)	5.111*
	Needed	352	2.01 (.90)	4.679*
Interventions	Training	360	.79 (.86)	4.777*
	Current	359	.95 (.88)	4.872*
	Needed	357	1.92 (.95)	4.647*
Work with Translators	Training	362	.45 (.74)	7.578*
	Current	361	.63 (.80)	6.248*
	Needed	360	1.71 (1.01)	4.610
Research	Training	362	.44 (.77)	7.798*
	Current	362	.56 (.78)	6.611*
	Needed	357	1.73 (1.01)	4.413*

* *p = .000 (2-tailed)*
Note: Ratings Code: 0 = None; 1 = Some; 2 = Adequate; 3 = Strong.

Significant differences between school psychologists' ratings of their competence gained in training, their ratings of current competence, and of perceived need for competence to serve NA youth were found in all six areas. Participants' mean ratings of their competence gained in training ranged from .44 to .85, ratings that fall in the "none" to "some" range. Respondents' mean ratings of current competence were consistent with the "none" to "some" descriptors (i.e., .78 to 1.07). In contrast, their mean ratings of perceived need for NA-specific competencies ranged from 1.71 to 2.01 or "some" to "adequate." Psychoeducational Assessment received the highest ratings for training, current, and needed competence; research received the lowest ratings for competence, from training and current competence in practice. Overall, ratings of current competence were significantly higher than competence gained in training; the need for NA-specific competencies was higher than both, with one exception, Work with Translators (which had the lowest rating for needed competence).

Length of Time Working with NA Youth

To investigate the impact of longevity of experience serving NA youth on the development of NA-specific competencies, we first conducted a Mann-Whitney U test for paired and independent samples for the subgroups who answered "yes" and "no" to the question "Do you work with NA youth?" Table 3 demonstrates that those who answered "yes" rated their levels of competence in training, current practice, and levels of competence they believe are needed for effective practice at significantly higher levels than those who indicated they had not worked with NA youth. Perceived levels of competence working with translators was the sole exception. We then examined these variables within the groups that reported working with Native American youth.

Table 3 *Mann-Whitney U Tests for Significance of Differences in Competence Between Respondents Who Work or Don't Work with NA Children and Youth*

Area of Competence	Measure	Total Mean (SD)	Work with NA n = 95	Don't Work with NA n = 265	Z-values
			Mean Rank	Mean Rank	
Legal-Ethical	Training	.72 (.84)	240.08	159.14	-7.18***
	Current	.94 (.80)	247.22	156.15	-8.00***
	Needed	1.90 (.88)	202.06	170.05	-2.73**
School Culture, etc.	Training	.72 (.84)	236.01	160.13	-6.65***
	Current	.91 (.86)	253.02	154.87	-8.44***
	Needed	1.85 (.91)	198.38	171.26	-2.32*
Psychoed. Assessment	Training	.85 (.88)	239.70	158.07	-7.08***
	Current	1.07 (.92)	243.16	155.30	-7.58***
	Needed	2.01 (.90)	195.811	169.57	-2.27*
Interventions	Training	.79 (.86)	235.13	161.20	-6.43***
	Current	.95 (.88)	250.16	155.11	-8.17***
	Needed	1.92 (.95)	203.75	170.15	-2.86**
Work with Translators	Training	.45 (.74)	219.32	168.04	-4.95***
	Current	.63 (.80)	225.37	165.15	-5.38***
	Needed	1.71 (1.01)	187.83	177.87	-.84
Research	Training	.44 (.77)	238.71	161.14	-7.65***
	Current	.56 (.78)	245.88	158.59	-7.97***
	Needed	1.73 (1.01)	199.80	171.46	-2.39*

** p < .05 (two-tailed) , ** p < .01 (two-tailed), ***p < .001 (two-tailed)*

A total of 117 respondents indicated that they worked with NA youth; 93 to 95 participants rated their levels of competence in training, in current practice, and needed competence. Respondents who worked with NA youth for ≤1 year were significantly different from those who worked 2-5 years, 6-10 years and ≥11 years in levels of competence attained from training in four of the six areas: Legal-Ethical, Interventions, Working with Translators, and Research (see Kruskal-Wallis results in Table 4). An interesting pattern emerges. The highest mean ranks for competence from training are associated with participants having 6-10 years of experience with NA youth; those with ≥11 had slightly lower mean ranks, yet consistently higher than those with ≤1 to 5 years experience. The impact of longevity of experience on current competence is significant for all of the areas except Work with Translators. Experience did not, however, make a difference in the ratings of competencies needed to serve NA children and youth.

Table 4 *Kruskal-Wallis One Way Analyses of Variance by Ranks: Differences of Rank-Order of Competencies by Years of Experience Serving NA/AI Children and Youth*

Area of Competence	Measure	*n*	Mean Ranks				*z*
	Years of Experience		≤ 1 yr n = 14	2-5 yr n = 24	6-10 yr n = 19	11+ yr n = 38	
Legal-Ethical	Training	94	30.79	46.67	53.76	52.30	8.72*
	Current	94	26.96	44.92	57.39	52.01	13.63*
	Needed	94	40.50	50.35	52.11	46.09	2.08
School Culture, etc.	Training	93	33.32	44.20	55.97	50.67	7.08
	Current	93	30.14	42.91	50.89	54.87	10.81*
	Needed	93	52.71	50.48	48.50	44.60	1.39
Psychoed. Assessment	Training	93	36.35	40.56	54.86	52.09	7.34
	Current	93	32.15	40.90	51.08	55.03	10.09*
	Needed	93	49.96	45.48	49.72	45.65	0.62
Interventions	Training	94	34.18	41.15	59.47	50.26	10.04*
	Current	94	27.39	40.65	59.55	53.03	16.46*
	Needed	94	50.14	47.13	50.87	45.07	0.85
Work with Translators	Training	95	31.43	45.58	59.47	49.89	10.17*
	Current	95	31.14	47.13	52.79	52.37	7.50
	Needed	95	60.14	44.40	50.13	44.74	4.14
Research	Training	95	29.43	47.02	53.24	53.24	9.30*
	Current	95	28.00	46.04	52.59	52.59	11.54*
	Needed	95	52.07	49.91	44.92	46.91	.82

** p < .05 (two-tailed)*

Respondents who had worked for one year or less reported significantly less competence than participants with two or more years of experience (see results of Mann-Whitney tests in Table 5). Respondents who worked with NA populations for 6-10 years (n = 19) indicated higher levels in training in Working with Translators (Z = 3.33, p = .001) than those who had worked ≤ 1 year (n = 14); and higher levels of current competence than those who had worked ≤ 1 year (n = 14) in three areas: Legal-Ethical (Z = 3.21, p = .003), Interventions (Z = 3.44, p = .001), and Research (Z = 2.97, p = .003). The contrast between competence in current practice of those who have worked ≥ 11 years with NA populations and those who have worked ≤ 1 year was significantly different in five areas: Legal-Ethical (Z = 3.26, p = .001), School Culture (Z = 3.08, p = .002), Assessment (Z = 2.72, p = .006), Interventions (Z = 3.33, p = .001) and Research (Z = 3.02, p = .003). Thus, the length of time working with NA youth makes a significant difference in perceived competence in training, current practice, and in perceived need in each domain.

Table 5 *Mann-Whitney U Tests for Significance of Differences Across Rated Competence by Years of Experience Serving NA/AI Children and Youth*

Area of Competence	Measure	*n*	Mean (SD)	*Z*-values			
		Years Experience		≤ 1 yr n = 14	2-5 yr n = 24	6-10 yr n = 19	11+ yr n = 38
Legal-Ethical	Training	94	1.23 (.90)		-1.86	-2.71	-2.65
	Current	94	1.52 (.83)	--	-2.28*	-3.21*	-3.26*
	Needed	94	2.85 (1.12)		-1.20	-1.37	-.63
School Culture, etc.	Training	93	1.22 (.93)		-1.32	-2.51	-2.08
	Current	93	1.56 (.85)	--	-1.52	-2.38*	-3.08*
	Needed	93	2.04 (.79)		-.22	-.46	-1.05
Psychoed. Assessment	Training	93	1.39 (.89)		-.67	-1.77	-1.94
	Current	93	1.67 (.86)	--	-1.17	-1.99*	-2.72*
	Needed	93	2.22 (.75)		-.52	-.44	-.53
Interventions	Training	94	1.27 (.91)		-.82	-2.67	-2.20
	Current	94	1.61 (.88)	--	1.67	-3.44*	-3.33*
	Needed	94	2.18 (.80)		-.34	-.08	-.64
Work with Translators	Training	95	.80 (.93)		-1.88	-3.33	-2.17
	Current	95	1.04 (.96)	--	-2.14*	-2.42*	-2.37*
	Needed	95	1.79 (.97)		-1.88	-1.01	-1.85
Research	Training	95	.94 (.95)		-2.14	-2.31	-3.02
	Current	95	1.09 (.90)	--	-2.23*	-2.97*	3.00*
	Needed	95	1.96 (.85)		-.25	-.79	-.64

* *p < .05 (two-tailed)*

Note: Mean Ranks are presented for each group on each measure in Table 3.

Ethnic Differences

We used Mann-Whitney tests to examine the differences in competence in the six areas reported by ethnic groups. Because of relatively low numbers in ethnic subgroups, Native American (3.9%), African American (3.1%), Latino (5.3%), dual ethnicity not including Native American (1.2%), Asian/Pacific Islander/Pilipino (1.9%), and Other (1.7%), we re-coded the combined group People of Color (POC). Table 6 presents these results for 342 European Americans (EA) and 61 People of Color (POC).

POC rated their current competence as higher than that reported by EAs in all six areas. They also rated their competencies from training higher than EAs in four of the six areas: School Culture, Assessment, Interventions, and Work with Translators. Significantly, POC give greater weight than EAs to the importance of NA-specific competence in Legal-Ethical, School Culture, Assessment, and Interventions.

Table 6 *Mann-Whitney U Tests for Significance of Differences Between Rated Competence by People of Color and European Americans*

Area of Competence	Measure	Total Mean (SD)	People of Color n = 71		European American n = 342		Z-values
			Mean Rank	Mean (SD)	Mean Rank	Mean (SD)	
Legal-Ethical	Training	.72 (.84)	194.00	.92 (1.0)	173.45	.67 (.79)	-1.57
	Current	.94 (.80)	209.23	1.25 (.94)	169.64	.86 (.76)	-3.02*
	Needed	1.90 (.88)	210.69	2.21 (.86)	167.44	1.83 (.87)	-3.22*
School Culture, etc.	Training	.72 (.84)	205.09	1.03 (1.04)	170.63	.65 (.78)	-2.61*
	Current	.91 (.86)	209.02	1.23 (1.0)	170.31	.84 (.81)	-2.89*
	Needed	1.85 (.91)	196.80	2.07 (.91)	170.38	1.82 (.91)	1.96*
Psychoed. Assessment	Training	.85 (.88)	202.31	1.16 (1.10)	170.47	.78 (.82)	-2.40*
	Current	1.07 (.92)	213.35	1.49 (1.10)	166.88	.97 (.86)	-2.40*
	Needed	2.01 (.90)	199.93	2.23 (.95)	167.33	1.89 (.88)	-2.45*
Interventions	Training	.79 (.86)	202.24	1.07 (1.05)	171.73	.71 (.79)	-2.31*
	Current	.95 (.88)	215.13	1.34 (1.05)	169.03	.85 (.81)	-3.44*
	Needed	1.92 (.95)	204.46	2.16 (1.00)	170.01	1.88 (.93)	-2.55*
Work with Translators	Training	.45 (.74)	217.38	.84 (.99)	169.83	.37 (.65)	-3.99*
	Current	.63 (.80)	214.88	.98 (.97)	169.87	.55 (.75)	-3.47*
	Needed	1.71 (1.01)	191.98	1.85 (1.06)	173.87	1.68 (.99)	-1.32
Research	Training	.44 (.77)	196.55	.62 (.92)	174.15	.39 (.73)	-1.92
	Current	.56 (.78)	211.15	.87 (.96)	171.12	.48 (.72)	-3.17*
	Needed	1.73 (1.01)	196.38	1.93 (1.06)	171.18	1.69 (1.0)	-1.83

** $p < .05$ (two-tailed)*

DISCUSSION

School Psychologists Currently Not Prepared

The study's primary finding is the striking disparity between the skills and level of competence respondents perceive they gained in training in all six domains of practice investigated, those developed since training, and those perceived as needed to adequately serve NA youth. School psychologists believe they are significantly under-prepared in training, and remain significantly under-prepared in practice to serve this population, despite whatever on-the-job and formal professional growth experiences they might have had. Further, they report needing significantly more skills to be effective in practice, even at just an adequate level.

Significant differences between self-rated knowledge and skills from training and current levels of competence clearly point to gaps in training, yet also indicate that ongoing professional development, or access to it, has been insufficient to meet perceived needs. Without sufficient knowledge and skills to provide appropriate service delivery, NA achievement, school completion, and appropriate identification for special education understandably suffer.

Ethnic Differences in Perceptions of Competence

Calls for more NAs to work in education have come from government agencies, researchers, and NA parents (c.f., NCES, 2008). To determine whether NAs would be better prepared to work with Native youth, we examined ethnic differences. While NA school psychologists in the current study reported they were better prepared to work with NA, numbers were insufficient for statistical verification; thus, data from non-European American (EA) respondents were collapsed into a group named People of Color (POC). In all six domains of knowledge/skill and in four domains of training, POC rated their preparation to work with NA youth higher than did EAs.

Longevity with the Population a Significant Variable

The data on longevity working with Native youth yields a different look at contributions to competence. Respondents who said they work with NAs (vs. those who did not) reported significantly higher levels of competence from training, current practice, and in levels needed for effective practice. This is troublesome when higher over-representation in special education for Native youth occurs within "low-density" schools, where invisibility is likely. In states such as California, where the numbers of Native

American youth are the highest in the nation, but percentages in individual schools are low, this likelihood is enhanced. This suggests that urban and suburban school psychologists may need at least as much, if not more preparation to work with Native youth than those working with higher percentages in reservation communities.

With increased experience, reported levels of competence in current practice increase significantly. Compared to those with one or fewer years of experience, those reporting 6-10 years experience with NA youth reported significantly higher current competence in three areas. With ≥11 years' experience, five areas are rated stronger. To some degree this finding is expected; some prior research finds that experience working with diverse clients predicts multicultural skills (e.g., Allison, Echemendia, Crawford, & Robinson 1996; Arthur & Januszkowski, 2001). Yet, respondents well experienced with NAs still did not report "adequate" levels of competence in current practice.

Implications for Training and Practice in School Psychology

Significant differences in virtually all areas between what school psychologists know, either through training or experience, and what they need to know has profound implications for training, continuing professional development, and ethical practice. Some level of additional preparation seems essential. In addition, this finding indicates a high level of professional awareness of the gaps, suggesting openness to intensified professional training. Because school psychologists working for longer periods of time with Native American youth and those of ethnically diverse backgrounds appear to have a different level of knowledge or skill, and perhaps a unique lens from which to understand the issues, solicitation of their input, contributions, and/or leadership will be important. It may seem intuitive to focus this concern for more professional development work to those serving high density AI/AN areas, as those working with fewer numbers of Native youth express less need; however, demographic distributions suggest that extremely large numbers of AI/AN youth are distributed across urban and suburban regions in which they are even more likely to become statistics of over-representation and misplacement – victims of the "invisibility" problem. It is critical that the profession not perpetuate the tendency to "absorb" Native issues into a larger multicultural context, or to defer the issue to high-density areas.

Over a decade ago, the U.S. Department of Education proposed increasing the number of Indian educators as a national priority (Indian Nations at Risk Task Force, 1991). Despite funding and training initiatives, shortages persist. Continued recruitment and retention of those who bring culturally diverse lived experiences, worldviews, perspectives, and strategies into the profession appears essential. Nonetheless, that alone will not remedy the problem. Because even the most experienced practitioners expressed the need for significantly more information and skills for work with Native youth, determining not only what to do but how to do that becomes paramount.

A Problem of Paradigm?

The multicultural literature has been dominated by the notion of conceptual categories of awareness, knowledge and skills (Fowers & Davidov, 2006), yet Smith et al. (2006) found skill development often ignored in most coursework. Lists of competencies have been developed to guide enhanced multicultural training (c.f., Holcolm-McCoy & Myers, 1999; Rogers & Lopez, 2002). However, as Ridley (2008) points out, such lists can be "descriptive, but not prescriptive," (p. 446); they tell people what to do, but not how to learn to do it. In addition to this problem, the all-too-frequent practice of teaching approaches that survey one culture per day or chapter, called "cultural tourism" by Perry (2002) can lead to portraying people of color with "tightly bound fictive identities" that tend to stereotype, and leave no room for difference or flexibility in relationship building (p. 197). Green, Cook-Morales, Robinson-Zañartu and Ingraham (2009) suggest that learning to shift behaviors with cultural competence requires a shift in paradigms and synergistic attention to conceptual depth, cultural context, and experience, as well as appropriate depth of affect.

Although it is not within the scope of this paper to propose an alternative paradigm, we do propose that alternative models should be sought and tested, and that at least three components be considered for skill development alongside relevant knowledge: (a) a process orientation that is more holistic in nature,

going beyond cognitive constructions of learning; (b) consideration of multiple and salient identities; and (c) worldview differences.

Native Americans come from a multitude of tribal communities and language groups; some are from more than one tribe or may not speak their traditional language, and affinity for traditional values and acculturation levels vary widely. Within the school psychology literature, Ingraham (2000) discusses the critical role of attending to both individual differences within cultural groups and the multiple cultural identities prevalent in many individuals in school-based consultation. She and others (e.g., Monk, Winslade & Sinclair, 2008) discuss the role of cultural saliency in developing respectful relationships needed to effectively create interventions. Further, Arredondo and Arciniega (2001) suggest that without developing the ability to understand another worldview, cultural competence would be out of reach, since culturally formed worldviews drive assumptions and operating norms.

Native American history has been fraught with a clash of cultures. Much of this clash has resulted in significant losses, of land, culture, language, and even entire tribes. Despite this, Native Americans have demonstrated not only survival, but also amazing resilience. The results of this survey acknowledge a professional self-awareness that despite mandates for cultural sensitivity in training and practice, insufficient knowledge is available to understand the complexity of issues faced by Native Americans. If we apply our understanding of systems and ecology, combined with this acknowledged limitation in professional capacity, it is possible to create the next wave of cultural sophistication in professional training and practice.

LIMITATIONS

This study measured self-assessment of competence in training, practice, and perceived competence needed for effective practice; thus, limitations inherent in self-perception measures versus outcomes data suggest caution in interpretation. Two other limitations in this study relate to population demographics: first, the vast majority of school psychologists are European American females. Because of this ethnic and gender disparity, a wide range of group sizes and variances exist between ethnic and gender sub-groups. Non-parametric statistics were used because of their robustness in these situations; however, some of these findings may be over- or under-inflated. Second, deliberate over-sampling to obtain higher numbers who serve NA youth, along with the fact that respondents were volunteer participants from requests sent to a random sample NASP members yielded a study sample that is not truly random. However, the sample and sampling method reflected the challenges that this demographic imbalance presents, and provides important implications that will be examined in the following discussion. Finally, reliability and validity of the survey itself could have been strengthened. Although the survey drew on literature and on the experiences of Native American psychologists to establish face validity and content validity, and attention was paid to an adequate sample size, measures of reliability to control for different response patterns or effects of an issue's position in the survey were not used. No statistics were employed to establish internal reliability. To the extent that these issues may have compromised the reliability of the survey, caution in interpretation of results is warranted.

DIRECTIONS FOR FUTURE RESEARCH

Even experienced practitioners expressed the need for significantly greater levels of competence working with Native youth. In that context, several directions for future research emerge from this study. First, we propose that alternative models be sought and tested for training that will help graduates be far better prepared to identify NA students, and be equipped with a range of information and tools to serve them. Concurrent with this, research on and development of best practice standards is needed in the six areas identified above with NA populations. The second area relates to current practitioners' belief that they are inadequately prepared to serve NA youth. The following research questions are germane: (a) Is continuing professional development (CPD) available to school psychologists in this area? (b) If it is available or were it to become available, would those serving NA youth on or near rural reservations or in other large population centers take advantage of such CPD? Large numbers of NA students represent small percentages in urban schools and districts; thus would school psychologists serving that population take advantage of such CPD? Finally, how would enhanced skill and information development make a difference in service to NA children and youth?

Findings have been inconsistent regarding the effects of ethnicity on self-reports of multicultural competence (Manese, Wu & Nepomuceno, 2001; Pope-Davis, Reynolds, Dings & Nielson 1995; Sodowsky, Kuo-Jackson, Richardson & Corey, 1998). We posit three possibilities regarding why our respondents of color (POC) reported significantly higher levels of preparation to work with NA youth than EAs. First, people of color bring lived experience to their training and practice that may add a proclivity (a) to seek out culturally relevant tools and skills, and (b) to build on a practice of interpreting the "white world" through a cultural lens. These experiences involve skills in a kind of cross-cultural translation, which may transfer to and augment their school psychology training and practice. Second, POC may have rated the need for higher levels of competence for effective practice with themselves in mind; that is, their own experiences of schooling compelled higher levels of need for competence with all POC, including Native youth, than experienced by EAs. Each of these hypotheses may be best explored using qualitative research methods. A third possibility, not mutually exclusive of the first and second, is that as a group, POC attended training programs with more depth in cross-cultural issues. Because we did not solicit those data (which respondents attended specific training programs), this hypothesis (as do the others) suggests an additional area for future research.

Alternate approaches to assessment of competence to work with NA youth (or other specific groups) beyond self-report need to be considered; for example, using case scenarios designed to pull for information from each of the six areas of competence. Ultimately, it will be important to examine the assessments of competence (however measured) to real outcomes for the targeted group in the schools of the participating school psychologists. This challenge is embedded in NASP's accreditation standards, in that training programs are expected to document positive outcomes in the schools. As faculty members design such program outcomes studies, we urge them to attend to evaluating the link between cultural competence and outcomes for culturally and linguistically diverse preK-12 students.

Carol Robinson-Zañartu, PhD., is a professor of School Psychology at San Diego State University. Her research, publications, and consultations focus on issues of equity and social justice, and on dynamic intervention-based assessment. She holds special interest (and numerous federal grants) in preparing school psychologists to serve Native American schools and communities.

Nola Butler Byrd, PhD., is a scholar/activist, and director of San Diego State University's Community-Based Multicultural Counseling Program. Her research interests include experiential multicultural counseling and community practice for social justice, Indigenous healing and worldview, and multicultural identity development.

Valerie Cook-Morales, PhD., is a professor and chair of the Department of Counseling and School Psychology at San Diego State University. She specializes in educational equity – from kindergarten through graduate school – from individual through systems levels, with emphasis on delivery of services for culturally-linguistically diverse students, especially bilingual Latino students, with or at risk of disabilities.

Elvina Charley, Ed.S., is a Diné School Psychologist in Ganado, Arizona, working with Native American youth and families. She is fluent in Navajo language and culture, and is experienced providing service to a number of rural community and public schools serving Native youth. She serves as chair of the Native American Work Group for the National Association of School Psychologists.

Paul Dauphinais, PhD., is an enrolled member of the Turtle Mountain Band of Chippewa Indians. Within his home reservation, Dr. Dauphinais serves approximately 3700 children as a school psychologist, providing academic and behavior assessments and interventions from children and youth from ages 3-21. He most enjoys working with very young children.

Mike Bonner, PhD., is an independent practitioner of community psychology, providing organizational development consultation and program evaluation to non-profit organizations that provide community-based services. He is also adjunct instructor of psychology, primarily with Hawai'i Pacific University, providing online courses.

REFERENCES

Allison, K.W., Echemendia, R.J., Crawford, I., & Robinson, W.L. (1996). Predicting cultural competence: Implications for practice and training. *Professional Psychology: Research and Practice, 27*, 386-393. doi:10.1037/0735-7028.27.4.386

American Psychological Association (1990). *Guidelines for providers of psychological services to ethnic, linguistic, and culturally diverse populations*. Washington, DC: Author.

American Psychological Association (2003). *Guidelines on multicultural education, training, research, practice, and organizational change for psychologists*. Washington, DC: Author.

Arredondo. P. & Arciniega, G. (2001). Strategies and techniques for counselor training. *Journal of Multicultural Counseling and Development, 26*, 63-73.

Arthur, N., & Januszkowski, T. (2001). The multicultural counseling competencies of Canadian counselors. *Canadian Journal of Counseling, 35*, 36-48.

Cleary, L.M. & Peacock, T.D. (1998). *Collected wisdom: American Indian education*. Boston: Allyn & Bacon.

Cook-Morales, V.J. & Robinson-Zañartu, C.A. (1995, July). Model strategy: Systemic change toward educational equity in professional psychology programs. *Communiqué*, pp. 9-13. Washington, D.C.: Office of Ethnic Minority Affairs, Public Interest Directorate, American Psychological Association.

Deloria, V. & Wildcat, D.R. (1991). *Power and Place: Indian education in America*. Golden, CO: Fulcrum Group.

Faircloth, S.C., & Tippeconnic, III, J.W. (2010). *The Dropout/Graduation Rate Crisis Among American Indian and Alaska Native Students: Failure to Respond Places the Future of Native Peoples at Risk*. Los Angeles, CA: The Civil Rights Project at UCLA. Retrieved from http://www.civilrightsproject.ucla.edu/news/pressreleases/pressrelease20100217-dropouts.html

Fowers, B.J., & Davidov, B.J. (2006). The virtue of multiculturalism: Personal transformation, character, and openness to the other. *American Psychologist, 61*, 581-594. doi:10.1037/0003-066X.61.6.581

Green, T.D., Cook-Morales, V.J., Robinson-Zañartu, C.A., & Ingraham, C.L. (2009). Pathways on a journey to getting it: Multicultural competence training and continuing professional development. In J. Jones (Ed.). *The psychology of multiculturalism in schools: A primer for practice, training, and research* (pp. 83-113). Bethesda, MD: National Association of School Psychologists.

Holcomb-McCoy, C., & Myers, J. (1999). Multicultural competence and counselor training: A national survey. *Journal of Counseling and Development, 77*, 294-302.

Indian Nations at Risk Task Force (1991). *Indian nations at risk: An educational strategy for action*. Final Report of the Indian Nations At Risk Task Force. Washington, DC: U.S. Department of Education.

Ingraham, C.L. (2000). Consultation through a multicultural lens: Multicultural and cross-cultural consultation in schools. *School Psychology Review, 29*, 320-343.

Isaac, S., & Michael, W.B. (1981). *Handbook in research and evaluation* (2nd ed.). San Diego, CA: EdITS.

Klug, B.J., & Whitfield, P.T. (2003). *Widening the circle: Culturally relevant pedagogy for American Indian Children*. New York, NY: RoutledgeFalmer.

Manese, J.E., Wu, J.T. & Nepomuceno, C.A. (2001). The effect of training on multicultural competences: an exploratory study over a ten year period. *Journal of Multicultural counseling and Development, 29*, 31-40.

Monk, G., Winslade, J. & S. Sinclair, S. *New horizons in multicultural counseling*. Sage: Thousand Oaks.

National Association of School Psychologists (2000). *Standards for training and field placement programs in school psychology*. Bethesda, MD: Author.

National Center for Education Statistics (NCES) (2008). *Status and trends in the education of American Indians and Alaska Natives*. U.S. Department of Education Institute of Education Sciences. Retrieved from http://nces.ed.gov/pubs2008/nativetrends/

Orfield, G., Losen, D., Wald, J., & Swanson, B. (2004, February). *Losing our future: How minority youth are being left behind by the graduation rate crisis*. Retrieved from http://www.urban.org/url.cfm?ID=410936

Palmer, D.J., Juarez, L. & Hughes, J.N. (1991). School psychology training and the education of minority at-risk youth: The Texas A & M university program emphasis on handicapped Hispanic children and youth. *School Psychology Review, 20*, 472-484.

Perry, P. (2002) *Shades of white: White kids and racial identities in high school*. Durham, NC: Duke University Press.

Pope-Davis, D.B., Reynolds, A.L., Dings, J.G. & Nielson, D. (1995). Examining multicultural counseling competencies of graduate students in psychology. *Professional Psychology: Research and Practice, 26*, 322-329. doi: 10.1037/0735-7028.26.3.32

Rampey, B.D., Lutkus, A.D., & Weiner, A.W. (2006). *National Indian Education study, Part I: The performance of American Indian and Alaska Native fourth- and eighth-grade students on NAEP 2005 Reading and Mathematics Assessments* (NCES 2006-463). Washington, D.C.: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics.

Ridley, C.R. (2008). Response to Chapter 17. In G. Monk, J. Winslade & S.L. Sinclair, *New Horizons in Multicultural Counseling* (pp. 446-447). Thousand Oaks, CA: Sage.

Robinson-Zañartu, C. (1996). Serving Native American children and families: Considering cultural variables. *Language, Speech, and Hearing Services in Schools, 27*, 373-384.

Rogers, M. ., Ingraham, C.L., Bursztyn, A., Cajigas-Segredo, N., Esquivel, G., Hess, R., Nahari, S.G. (1999). Providing psychological services to racially, ethnically, culturally, and linguistically diverse individuals in the schools: Recommendations for practice. *School Psychology International Journal, 20*, 243-264. doi: 10.1177/0143034399203001

Rogers, M.R. & Lopez, E.C. (2002). Identifying critical cross-cultural school psychology competencies. *Journal of School Psychology, 40*, 115-141. doi:10.1016/S0022-4405(02)00093-6

Rogers, M.R. & Molina, L.E. (2006). Exemplary efforts in psychology to recruit and retain graduate students of color. *American Psychologist, 2*, 143-156. doi:10.1037/0003-066X.61.2.143

Rogers, M.R., Ponterotto, J.G., Conoley, J.C., & Wiese, M.J. (1992). Multicultural training in school psychology: A national survey. *School Psychology Review, 21*, 603-616.

Smith, T.B., Constantine, M.G., Dunn, T., Dinehart, J., & Montoya, J.A. (2006). Multicultural education in the mental health professions: A meta-analytic review. *Journal of Counseling Psychology, 53*, 132-145. doi:10.1037/0022-0167.53.1.132

Sodowsky, G.R., Kuo-Jackson, P.Y., Richardson, M.F., & Corey, A.T. (1998). Correlates of self-reported multicultural competencies: Counselor multicultural social desirability, race, social inadequacy, and locus of control, racial ideology, and multicultural training. *Journal of Counseling Psychology, 45*, 256-264. doi: 10.1037/0022-0167.45.3.256

Smith, T.B., Constantine, M.G., Dunn, T., Dinehart, J., & Montoya, J.A., (2006). Multicultural education in the mental health professions: A meta-analytic review. *Journal of Counseling Psychology, 53*, 132-145. doi: 10.1037/0022-0167.53.1.132

Stancavage, F.B., Mitchell, J.H., Bandeira de Mello, V., Gaertner, F.E., Spain, A.K. & Rahal, M.L. (2006). *National Indian Education Study: Part II: The Educational Experiences of Fourth- and Eighth-Grade American Indian and Alaska Native Students*. Washington, D.C.: U.S. Department of Education, Institute of Education Sciences.

Sue, D.W. (2001). Multidimensional facets of cultural competence. *The Counseling Psychologist, 29*, 790 - 821. doi: 10.1177/0011000001296002

Tarver Behring, S. & Ingraham, C.L. (1998). Culture as a central component of consultation: A call to the field. *Journal of Educational and Psychological Consultation, 9*, 57-72. doi: 10.1207/s1532768xjepc0901_3

U.S. Census 2000 Summary File. Retrieved from http://www.wwwcensusgov.zuom.info/Press-Release/www/2004/AIANSF.html

U.S. Department of Education [DOE] Office of Special Education Programs (2003). Data Tables for State Reported Data. Retrieved from http://www.ideadata.org/arc_toc6.asp