

School Psychology Recruitment Research Characteristics and Implications for Increasing Racial and Ethnic Diversity

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Shortages of school psychologists and the underrepresentation of minorities in school psychology represent longstanding concerns. Scholars recommend that one way to address both issues is to recruit individuals from racially and ethnically diverse backgrounds into school psychology. The purpose of this study was to explore the characteristics and minority focused findings of school psychology recruitment studies conducted from 1994 to 2014. Using an electronic search that included specified databases, subject terms and study inclusion criteria along with a manual search of 10 school psychology focused journals, the review yielded 10 published, peer-reviewed recruitment studies focused primarily on school psychology over the 20-year span. Two researchers coded these 10 studies using a rigorous coding process that included a high level of inter rater reliability. Results suggest that the studies utilized varied methodologies, primarily sampled undergraduate populations, and mostly included White participants. Five studies focused on minority populations specifically. These studies indicate that programs should actively recruit minority undergraduates and offer financial support to attract minority candidates. Implications suggest a need for more recruitment research focused on minority populations and the implementation and evaluation of minority recruitment models.

Keywords: minority, psychology, recruitment, school psychology, student

The shortage of school psychologists is a longstanding issue that has received considerable attention through professional conferences, scholarly writing, and research (Castillo, Curtis, & Tan, 2014; Graves & Wright, 2007). For instance, the need for a greater supply of school psychologists was discussed at the 1954 School Psychology Thayer Conference, while the 2002 Multisite Conference on the Future of School Psychology gave major consideration to school psychology practitioner and faculty shortages (Harrison et al., 2004; Highley & Carlson, 2012). Most recently, Castillo et al. (2014) con-

ducted a 10-year follow-up to previously published research related to personnel shortage projections and found a continued shortage of school psychologists that will last through 2025. Personnel shortages present a challenge to the profession in terms of its long-term viability, but can also potentially compromise the quality of school psychological service delivery (Castillo et al., 2014; Harrison et al., 2004).

An additional issue that has been a concern since the profession's inception and contributes to the shortage of school psychologists is the underrepresentation of racial and ethnic minorities (Castillo, Curtis, & Gelley, 2013; Proctor, Simpson, Levin, & Hackimer, 2014). Castillo et al. (2013) noted that the racial demographics of school psychologists represent one of the field's slowest changing characteristics. Recent data indicate that 90.7% of school psychologists are White, 3% Black, 1.3% Asian/Pacific Islander, 0.6% Native American/Alaskan Native, and 3.4% Hispanic/Latino (Castillo et al., 2013). In contrast, the United States' public school-age population is rapidly increasing in racial and ethnic diversity (National Center for Education Statistics [NCES],

This article was published Online First June 2, 2016.

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The authors extend appreciation to Caitlin Lawlor for her assistance with various aspects of this project.

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2015). As of 2013, White students represented 51% of U.S. public school enrollment, while Hispanic students made up 24.3%, Blacks 15.7%, Asian/Pacific Islanders 5.13%, American Indians/Alaskan Natives 1.07%, and two or more races 2.8% (NCES, 2015).

Given increased student diversity, it is not surprising that most school psychologists work with racial and ethnic minority students (Curtis, Castillo, & Gelley, 2012). While it is a professional responsibility of all school psychologists to provide culturally competent services that meet the needs of the populations they serve (Proctor & Truscott, 2013), there is evidence of beneficial outcomes when mental health practitioners who are racially and/or ethnically similar to their clients provide such services (Bernal, Jimenez-Chafey, & Domenech Rodriguez, 2009; Griner & Smith, 2006). These findings are especially relevant to school psychology because practitioners are key and sometimes the sole psychological service providers to racial and ethnic minority students (Curtis et al., 2012; Proctor & Truscott, 2012; Zhou et al., 2004). Indeed, African American school psychologists in Truscott, Proctor, Albritton, Matthews, and Daniel (2014) perceived their ability to connect with children and parents of color, advocate for students of color, and challenge racial bias as race-linked professional opportunities that enhance their service delivery to students of color.

From a research perspective, racial and ethnic minority scholars contribute to a broader range of perspectives and experiences that influence inquiry. Diverse academics often study and write about issues that affect diverse populations (Miranda & Gutter, 2002). The lack of racially and ethnically diverse school psychology scholars may be one reason the field's research in areas such as multicultural training and practice and social justice is underdeveloped compared to other psychology subfields (Miranda & Gutter, 2002; Newell et al., 2010; Proctor & Truscott, 2013; Speight & Vera, 2009). Further, racially and ethnically diverse academics often serve as mentors for graduate students from minority backgrounds, some of whom will become researchers (Beasley, Miller, & Cokley, 2015). Many of these mentors create more inclusive graduate school environments, model the use of culturally relevant pedagogy in the research process, and teach how to use critical research lenses to study issues relevant to diverse populations (Beasley et al., 2015). Be-

cause research drives practice and school psychological services should address the needs of its diverse clientele, school psychology must engage in efforts to increase racial and ethnic diversity among its practitioners and academics (Ehrnhardt-Padgett, Hatzichristou, Kitson, & Meyers, 2004; Proctor et al., 2014).

Recruitment of racial and ethnic minorities trained in a cultural competency model offers one way to develop a school psychology workforce prepared to serve diverse populations and expand research (Proctor & Truscott, 2013). The need to recruit racial and ethnic minority psychologists is not new. The American Psychological Association (APA) issued a "Resolution on Ethnic Minority Recruitment and Retention" in 1993. This resolution emphasized the organization's commitment to recruiting, retaining, advising, and mentoring minority students for psychology training and careers. A year later, the APA established the *Commission on Ethnic Minority Recruitment, Retention, and Training* (APA, 2008). Before these efforts by APA, there is evidence that racial and ethnic minorities represented about 17.5% of school psychology faculty and 11.5% of school psychology students (Zins & Halsell, 1986). Currently, approximately 40% of the U.S. population identifies as racial and/or ethnic minorities (U.S. Census Bureau, 2015), whereas only 23% of students and 16% of faculty in APA accredited school psychology doctoral programs identify as such (APA, 2014).

Compared with school psychology, clinical and counseling psychology each has a higher percentage of racial and ethnic minority students (Smith, Blake, & Graves, 2013). Findings from recruitment research in those fields can inform school psychology. For example, Bernal, Barron, and Leary (1983) surveyed clinical psychology program directors regarding utilization of recruitment strategies and found that about one-third used application materials that targeted minorities. They recommended that such materials include statements that invite potential minority students' application, emphasize a diverse students and faculty, and describe minority focused training opportunities. Muñoz-Dunbar and Stanton (1999) also surveyed clinical psychology program directors and most also used targeted minority recruitment strategies that included offers of financial support. More recently, Rogers and Molina (2006) interviewed faculty and minority students at mostly coun-

selling, clinical, and clinical/community psychology programs about their minority student recruitment practices. Rogers and Molina found that programs used minority focused recruitment strategies that mirrored those represented in earlier studies' findings, including linkages to undergraduate institutions with large minority student populations. Thus, consistent findings in clinical and counseling psychology suggest that offering financial support, using targeted minority focused admissions materials, having diverse students and faculty present within the program and during recruitment activities, contacting minority applicants personally, and establishing connections with minority serving institutions are all effective recruitment strategies.

Importantly, Zins and Halsell (1986) conducted one of the earliest studies of school psychology programs' recruitment efforts via a survey of faculty at masters/specialist and doctoral programs. They found that 25 programs reported not using any targeted minority student recruitment strategies; 9 indicated that regardless of an applicant's background, they did not recruit; 14 reported attempting to recruit with no success; and 21 did not respond to the item regarding recruitment strategies used. Those school psychology programs that did recruit used speaking engagements at high schools and undergraduate institutions, personal contacts with prospective students, flexible admissions such as waiving standardized tests, and emphasizing support systems available for minority students as strategies. Zins and Halsell's findings suggested a need for strengthened recruitment practices in school psychology. Currently, the continued underrepresentation of racial and ethnic minorities in school psychology has sparked calls for more research about minority recruitment in school psychology (Castillo et al., 2014; Ehrnhardt-Padgett et al., 2004; Proctor et al., 2014). However, it is difficult to know what research needs to be done without examination of existing research.

Structured and systematic research reviews analyze current knowledge regarding a specific topic and stimulate discussions and future investigations (Mckenney, Dorencz, Bristol, & Hall, 2015). More specifically, such reviews are a way of synthesizing what is known from the research using explicit and accountable methodology (Gough, Thomas, & Oliver, 2012). Although there is variation in approaches to systematic and structured reviews (e.g., statistical meta-analysis vs. metaeth-

nography), the use of explicit methodology—which facilitates replication—distinguishes structured and systematic reviews from other, less rigorous types of literature reviews (Gough et al., 2012). Thus, regardless of the approach taken, structured and systematic reviews require researchers to clearly explain their methods for identifying, searching, coding, appraising, and synthesizing research (Gough et al., 2012). Recently, systematic and structured reviews have examined the status of school psychology research in areas such as bilingual school psychology, cultural diversity, race and ethnicity, and social justice (Graybill, Baker, Cloth, & Fisher, 2015; Grunewald et al., 2014; Noltemeyer, Proctor, & Dempsey, 2013; Olvera & Olvera, 2015; Villarreal, 2014). To date there has not been a structured review of research that investigates recruitment of racially and ethnically diverse individuals into school psychology.

Thus, this article presents the results of a structured review of the school psychology recruitment research. The aim was to examine the status of school psychology recruitment research and determine areas in which future research and practice related to recruiting racial and ethnic minorities should be directed. The following research questions guided the study:

1. How many published studies have focused primarily on recruitment in school psychology from 1994 to 2014?;
2. What methodologies have been used to study recruitment in school psychology?;
3. On what topics have school psychology recruitment studies focused?;
4. Who (e.g., undergraduates, practitioners) has participated in school psychology recruitment studies?;
5. To what extent have racial and ethnic minorities been included in school psychology recruitment studies?; and
6. In studies where racial and ethnic minorities are the focus, what are the trends in recruitment findings?;

Method

The discussion that follows details the systematic procedures used to conduct the search for recruitment studies in school psychology (see Figures 1 and 2).

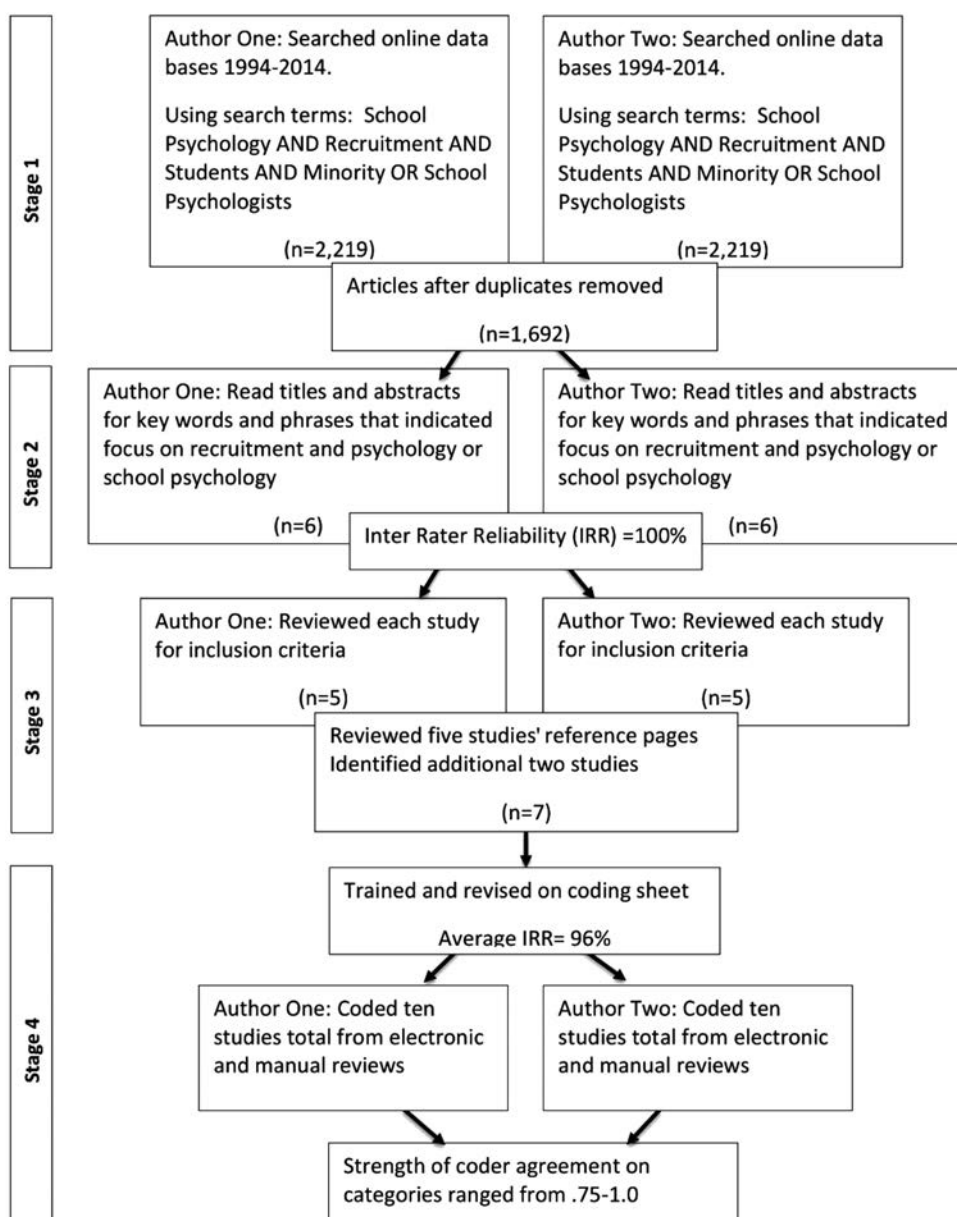


Figure 1. Systematic electronic search procedures.

Stage 1

Electronic search. In Stage 1, the first author, an associate professor of school psychology, and the second author, a third year specialist level school psychology graduate student, searched the online databases Academic Search

Complete, PsycARTICLES, PsycINFO, Social Sciences Full Text, and MEDLINE Complete using the following combination of subject terms: School Psychology AND Recruitment AND Students AND Minority OR School Psychologists. These specific databases were selected because they relate most directly to psy-

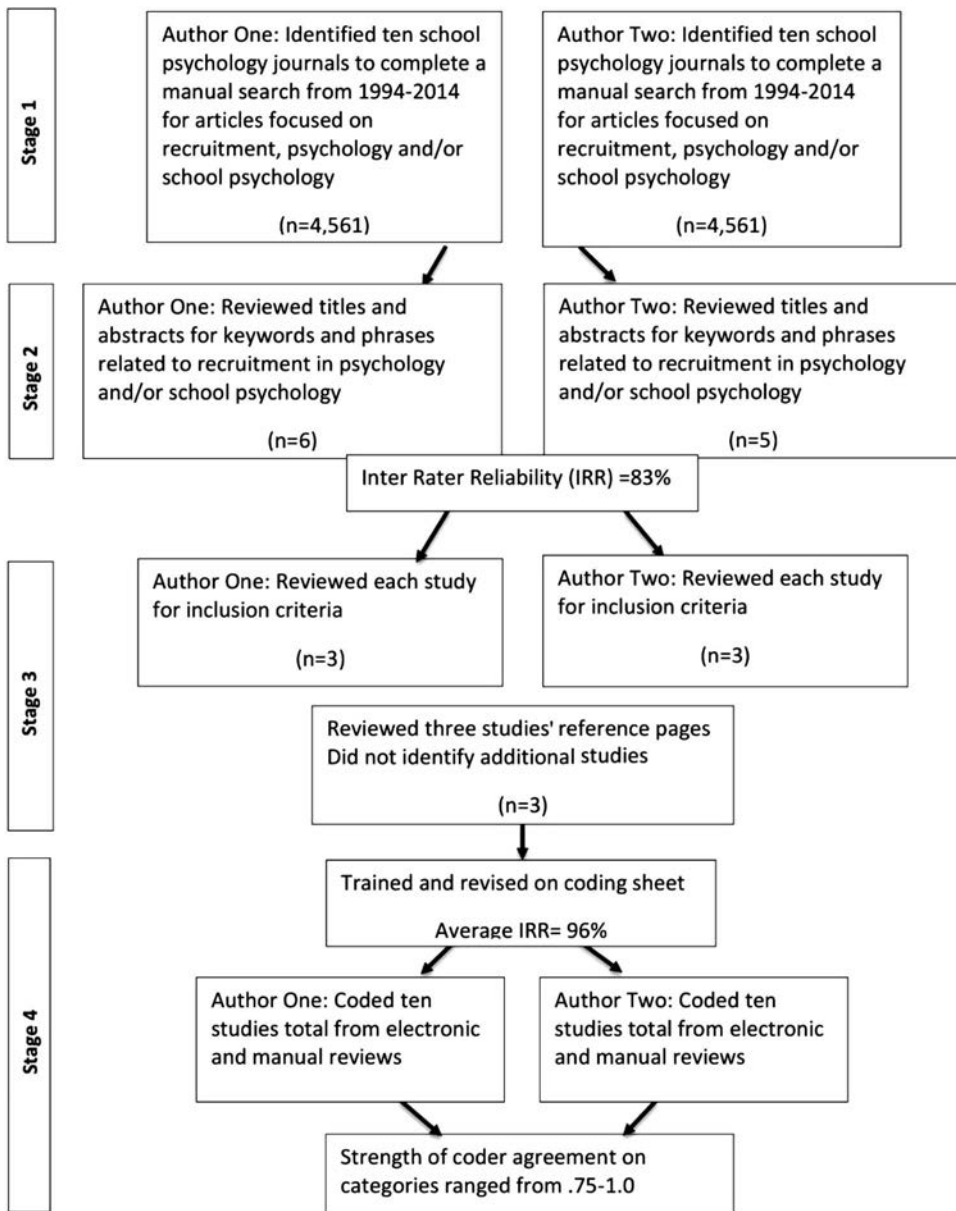


Figure 2. Systematic manual search procedures.

chology and these are the databases researchers use most to facilitate article identification for structured and systematic research reviews (Mckenney et al., 2015). These databases were searched for peer-reviewed articles that were published between January 1994 and December 2014. The search began at 1994 because, as

previously discussed, in December 1993 the APA issued a resolution for the field of psychology to attend to issues regarding minority recruitment and retention. We hypothesized that by 1994 researchers who heeded the APAs call would have begun disseminating school psychology recruitment studies. This search

yielded 2, 219 articles initially, but after duplicates were removed 1, 692 articles remained. Commentaries, editorials, introductions to special issues, and book reviews were excluded.

Manual search. To ensure a comprehensive review, we identified 10 school psychology journals to complete a manual search of all volumes and issues from 1994–2014 for articles focused on recruitment in psychology and/or school psychology. These journals included: *Contemporary School Psychology* (1996–2014), *International Journal of School and Educational Psychology* (2013–2014), *Journal of School Psychology* (1994–2014), *Special Services in the Schools* (1994–2002)/*Journal of Applied School Psychology* (2002–2014), *Psychology in the Schools* (1994–2014), *School Psychology Forum* (2006–2014), *School Psychology International* (1994–2014), *School Psychology Quarterly* (1994–2014), *School Psychology Review* (1994–2014), and *Trainers' Forum* (1995–2014). Parentheses indicate the years identified for review given that several were not in existence in 1994. This search yielded 4,561 articles. Similar to the electronic search, we excluded commentaries, editorials, introductions to special issues, book reviews, and reports of conference proceedings.

Stage 2

During Stage 2, we independently reviewed the titles and abstracts of the 1, 692 articles identified in the electronic search and 4, 561 articles identified in the manual search for key words, phrases, and sentences that indicated an article had a focus on recruitment of individuals into psychology and/or school psychology. We used an excel spreadsheet to record articles' search result number (electronic search only), title, authors, date, and if the article presented a study or conceptual work. In this stage, six published studies that could potentially be included in the structured review were identified via the electronic search. An additional five published studies not previously found via the electronic search were identified during the manual search. Thus, in Stage 2 a total of 11 articles were identified for potential study inclusion based on the electronic and manual searches. Interrater reliability (IRR) was calculated as the number of agreements divided by agreements plus disagreements. Across the electronic

and manual searches, IRR for identification of published studies with a focus on recruitment in psychology and/or school psychology was 92%. This IRR represents one disagreement between the authors during Stage 2. The study in question (i.e., Wilczenski, 1997) was reviewed in Stage 3 for potential study inclusion.

Stage 3

In Stage 3, we carefully read each of the studies identified in Stage 2. Each study was reviewed to ensure that it met study inclusion criteria which required that it was: (a) published between January 1994 to December 2014; (b) peer-reviewed; and (c) had a *primary* focus on school psychology and recruitment as demonstrated through the study's sample, purpose, research questions, literature review, results, and discussion. We also noted if racial and ethnic minorities were the focus of the purpose, research questions, and/or sample. Importantly, we targeted recruitment studies with a primary focus on school psychology because prior recruitment studies in psychology either focused exclusively on other subfields (e.g., Muñoz-Dunbar & Stanton, 1999) or did not isolate recruitment factors relevant to school psychology specifically (e.g., Hammond & Yung, 1993). For this reason and because there has been little increase in racial and ethnic diversity in school psychology (Castillo et al., 2013), we believed it was important to examine recruitment studies that had a primary focus on school psychology.

Consequently, studies that did not have a primary focus on school psychology were excluded from the current structured review. This included one study—Rogers and Molina (2006)—identified during the electronic search in Stage 2 that had a small sample of participants from a school psychology program, but was excluded because its primary focus was not on school psychology. Furthermore, two studies (Graves & Wright, 2013; Wilczenski, 1997) identified during the manual search in Stage 2 did not meet study inclusion criteria and were excluded from the study because of their primary foci not being on recruitment.

During Stage 3, five studies (Chandler, 2011; Graves & Wright, 2007; Proctor & Truscott, 2013; Stinnett, Bui, & Capaccioli, 2013; Rogers, 2006) from the electronic search were iden-

tified as meeting the structured review's inclusion criteria. An additional three studies (Highley & Carlson, 2012; Smith et al., 2013; Stinnett & Solomon, 2014) from the manual search were identified. Further, two additional studies (Gilman & Handwerk, 2001; Graves & Wright, 2009) were identified when we reviewed the reference pages of the five initial studies from the electronic search. No additional studies were found from reviewing the reference pages of the three articles identified in the manual search. Thus, 10 total studies were identified for inclusion in the structured review.

Stage 4

Training. During the initial phase of Stage 4, we trained using a coding sheet developed by the first author. The purpose of the coding sheet was to gather information about each study included in the structured review. The coding sheet included space to record publication information about each study (e.g., title, author[s], and author affiliation). The coding sheet also included 10 coding categories: race/ethnicity of participants, gender of participants, sample size, description of participants (e.g., undergraduates, practitioners), how sample was obtained (e.g., contacting undergraduate institutions, human subjects pool), if the study was longitudinal, topic of the study (e.g., recruitment of undergraduate students), methodology used, and if the study investigated retention. For studies with a specific focus on minorities, we also coded for minority focused recruitment findings (e.g., financial support, multicultural experiences offered).

For initial training purposes, we applied the coding sheet to the Rogers and Molina (2006) study. Overall IRR was 65%, which indicated more training was necessary and/or items on the coding sheet were not well developed. Thus, we engaged in further training and coding sheet development. This involved an iterative process of independently coding training articles, discussing coding discrepancies, and revising the coding sheet. During this process, we observed that IRR was particularly low on items in the minority focused recruitment findings category. We concluded that there were too many recruitment items, and that items could be combined. For instance, the first draft of the coding sheet had several items, including “recruit predom-

inantly minority serving institutions,” “recruit undergraduates,” “recruit locally and regionally,” and “NASP and APA increase recruitment.” Although distinct, all relate directly to findings that recruitment is needed to increase minority representation in school psychology. Therefore, these items were combined into one item labeled Recruit. Code sheet refinement continued until an IRR of at least 90% ($M = 96\%$; range = 93% to 100%) was obtained on three consecutive training studies. This occurred at the fourth training session. The final coding sheet is available from the first author upon request.

Study coding. In this phase of Stage 4, we used the coding sheet to separately code the 10 studies that met inclusion criteria and then compared codes. More specifically, to align with this study's research questions we coded the following categories: race/ethnicity of participants, sample size, description of participants, topic of study, methodology used, and minority focused recruitment findings. To evaluate the strength of coder agreement on the categories coded, Cohen's κ was calculated. A Cohen's κ statistic of 1 indicates perfect agreement, while 0 suggests agreement equal to chance (Viera & Garrett, 2005). Based on this, the strength of the agreement between the first and second author was perfect for race/ethnicity of participants and sample size; almost perfect for description of participants ($\kappa = .957$), methodology ($\kappa = .948$), and topic of study ($\kappa = .963$); and substantial for minority focused recruitment findings ($\kappa = .759$). To resolve coding discrepancies, we reviewed coding items in question, discussed coding disagreements, and reached consensus on accurate codes. This coding process followed methodology put forth in Noltemeyer et al.'s (2013) review of the school psychology research related to race and ethnicity.

Results

Published Recruitment Studies

Of the 1,692 electronically and 4,561 manually reviewed articles published between the years 1994 to 2014, eight reported on a study that had a primary focus on recruitment in school psychology. Two additional studies were found from reviewing the reference pages of studies initially identified via the electronic

search. Thus, a total of 10 published articles were found that focused primarily on recruitment in school psychology. All were published in the 2000s, the earliest in 2001 and most recent in 2014 (see Table 1).

Methodologies

The methodologies used varied. Five utilized purely quantitative methods (e.g., Gilman & Handwerk, 2001; Graves & Wright, 2009; Smith et al., 2013; Stinnett et al., 2013; Stinnett & Solomon, 2014) two purely qualitative methods (Chandler, 2011; Proctor & Truscott, 2013), and three mixed-methods (Graves & Wright, 2007; Highley & Carlson, 2012; Rogers, 2006). The quantitative studies used inventories, ques-

tionnaires, or surveys. Two of the mixed-methods studies utilized survey instruments that included open-ended questions, while one used semistructured telephone interviews and rating scales. One qualitative study used semistructured telephone interviews; the other used a questionnaire that consisted of open-ended questions.

Topics

Most of the studies (Chandler, 2011; Gilman & Handwerk, 2001; Graves & Wright, 2009; Stinnett et al., 2013; Stinnett & Solomon, 2014) explored undergraduates' attitudes, knowledge, and perceptions of and/or preferences for school psychology, with two (Chandler, 2011; Graves

Table 1
Characteristics of Recruitment Studies 1994–2014

Article title	Author(s)	Methodology	Topic
Psychology students' interest in graduate training: A need for partnership among undergraduate psychology and graduate school psychology programs	Stinnett and Solomon (2014)	Quantitative	Undergraduate students' attitudes and preferences for school psychology
Missing voices: Black school psychologists' perspectives on increasing professional diversity	Proctor and Truscott (2013)	Qualitative	School psychology practitioners' perspectives on recruitment
Undergraduate student preferences for graduate training in psychology: Implications for school psychology	Stinnett, Bui, and Capaccioli (2013)	Quantitative	Undergraduate students' knowledge about and perspectives of school psychology
School psychology programs' efforts to recruit culturally diverse students	Smith, Blake, and Graves (2013)	Quantitative	School psychology program directors' reports of recruitment strategy use
Pathways of school psychology: Looking at the present to predict the future	Highley and Carlson (2012)	Mixed method	School psychology students' reasons for selecting school psychology
Proactively addressing the shortage of Blacks in psychology: Highlighting the school psychology subfield	Chandler (2011)	Qualitative	Undergraduate students' and professors' knowledge about school psychology
Historically Black Colleges and University students' and faculties' views of school psychology: Implications for increasing diversity in higher education	Graves and Wright (2009)	Quantitative	Undergraduate students' and professors' knowledge about and perspectives of school psychology
Comparison of individual factors in school psychology graduate students: Why do students pursue a degree in school psychology	Graves and Wright (2007)	Mixed method	School psychology students' reasons for selecting school psychology
Exemplary multicultural training in school psychology programs	Rogers (2006)	Mixed method	School psychology students' and professors' views on multicultural training and recruitment
Undergraduate students' perceptions of school psychology: Findings and implications	Gilman and Handwerk (2001)	Quantitative	Undergraduate students' knowledge about and perspectives of school psychology

& Wright, 2009) simultaneously examining undergraduate professors' perceptions of school psychology and recruitment. The other studies varied in topic, with foci on school psychology students' reasons for selecting the field (Graves & Wright, 2007; Highley & Carlson, 2012), school psychology students' and professors' views on and experiences with minority recruitment practices at their programs (Rogers, 2006; Smith et al., 2013), and African American school psychologists' experiences with recruitment at their school psychology programs and perspectives on recruitment (Proctor & Truscott, 2013).

Participant Description

Across studies, there was total of 3,109 participants. Undergraduate students were the most prevalent, representing 56% of participants. Of the undergraduate students, 38% were psychology majors, 9% education majors, .3% biology, .3% sociology, and 52% were categorized as other or their majors were not specified. School psychology graduate students represented the second most sampled population (39%), school psychology professors (3%) the third, practitioners (1%) the fourth, and undergraduate professors the fifth (.5%; see Figure 3).

Racial and Ethnic Representation

Whites (73%) were the most sampled racial group across studies, while Asian Americans

(1%) were the least sampled. Eight percent of those sampled were Black, Hispanic/Latinos were represented at 4%, and Native Americans were represented at 2%. Three percent identified as "Other," while 8% did not have racial or ethnic classification specified (see Figure 4).

Minority Recruitment

Five of the studies (i.e., Chandler, 2011; Graves & Wright, 2009; Proctor & Truscott, 2013; Rogers, 2006; Smith et al., 2013) focused on minorities. They were coded for minority recruitment focused findings. All emphasized the importance of providing financial support to minority students and recruitment of racially and ethnically diverse students. Four studies found that programs' location, minority students' presence, and indication that support is available in the program are important for attracting minorities. Three recommended that program recruitment efforts should include targeting admissions material to minority applicants and highlighting multicultural experiences available. Two studies advised that programs and school psychology professional organizations increase awareness of the profession among minority populations; program length/flexibility and institution prestige are noted as part of recruitment efforts, and that diverse faculty members are present in the program and during recruitment activities. Finally, only one study suggested the use of flexible

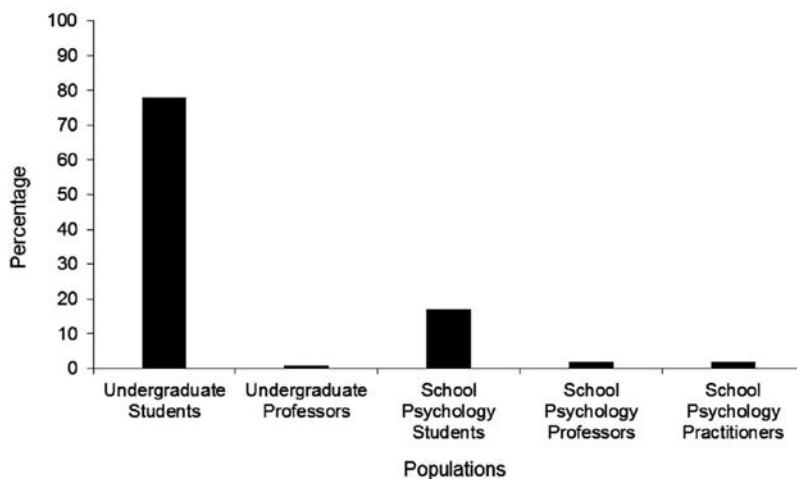


Figure 3. Participant description.

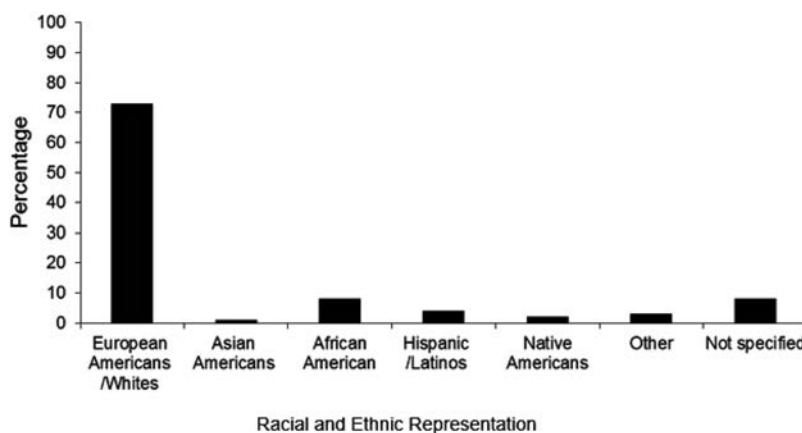


Figure 4. Racial and ethnic representation.

admissions criteria to recruit minority students (see Table 2).

Discussion

This structured review was conducted to determine the state of recruitment research focused primarily on school psychology. Over 20 years, 10 published, peer-reviewed articles were identified that met study inclusion criteria; half focused specifically on minority recruitment. The discussion below provides context for the findings and offers guidance for minority recruitment research and practice.

Insufficient Research Base

This review found 10 published studies with a *primary* focus on school psychology and recruitment across a 20-year span. This included five with a specific focus on minority student recruitment. Given the APAs concerted efforts to address the issue of minority underrepresentation in psychology, it is surprising that there are only 10 published recruitment studies focused primarily on school psychology. We began the search in 1994 because we questioned how long it would take for school psychology scholars to respond to the 1993 APA resolution

Table 2
Minority Focused Recruitment Strategies

Strategies	Articles				
	Proctor and Truscott (2013)	Smith, Blake, and Graves (2013)	Chandler (2011)	Graves and Wright (2009)	Rogers (2006)
Diverse faculty			X	X	
Diverse students		X	X	X	X
Flexible admissions					X
Financial support	X	X	X	X	X
Increase awareness	X		X		
Institution prestige			X	X	
Location of program/university	X	X	X	X	
Multicultural experiences offered		X	X		X
Program length/flexibility			X	X	
Targeted minority admissions material		X		X	X
Recruit	X	X	X	X	X
Support	X	X	X		X

on ethnic minority recruitment and retention. Our findings suggest that published, peer-reviewed studies focused primarily on recruitment in school psychology did not emerge until approximately 8 years after the APA resolution was released. From 1994 to 2014, the amount of research produced that focuses on recruitment of individuals in general, and of minorities, in particular, seems insufficient compared with the identified need for school psychologists overall and benefits of having more minority school psychology practitioners and academics (Bernal et al., 2009; Griner & Smith, 2006).

Varied Methodologies, But Limited Topics

The varied use of methodologies—quantitative, qualitative, and mixed-methods—found in this structured review is noteworthy because school psychology research is heavily quantitative (Floyd et al., 2011). In their review of the school psychology research related to race and ethnicity, Noltemeyer et al. (2013) encouraged the use of varied research methodologies to explore salient race-based issues. The methodologies represented in this structured review suggest that researchers who study recruitment in school psychology understand the value of using quantitative, qualitative, and mixed methodology. It is also likely that the studies' research questions drove methodology selection, leading to a wider range of methodologies. Several studies, for instance, were interested in understanding participants' knowledge about and/or perceptions of school psychology—topics that can aid in recruitment. These topics can be explored quantitatively through surveys, qualitatively through structured interviews, or using a mixture of both methods.

As expected and consistent with methodological standards, studies with larger sample sizes used quantitative and mixed-methods, while those with smaller sample sizes used qualitative methods. The studies utilizing purely qualitative methods were conducted to gain an understanding of specific populations' (a) knowledge and perceptions of the field and its recruitment practices or (b) experiences in the profession. The quantitative and mixed-methods studies with larger samples generally focused on more racially and ethnically diverse populations to examine why students would consider or were

pursuing training or careers in school psychology.

Generally, this structured review found that a narrow range of topics is explored in school psychology recruitment research. This may be because researchers typically design studies to build off prior work, seeking to fill small, but important gaps in the literature with each subsequent study. Given the limited school psychology recruitment research conducted over the 20-year span studied, it is not surprising that the breadth of topics explored is not broader. However, because there is still a significant shortage of racially and ethnically diverse school psychologists (Castillo et al., 2013), there remain many unanswered questions about the field's recruitment practices, which should spark new topics of investigation.

Participants

Given this review centered on recruitment of individuals into a profession that is primarily credentialed through graduate training, it is logical that undergraduate students were the largest percentage of participants. An interesting finding was that only 38% of the undergraduates sampled were identified as psychology majors, and 8% as education majors. Perhaps of significant interest is that over half of the undergraduates sampled did not have their majors specified or their majors were specified as "other." Given the lack of specific information about undergraduates' majors, besides psychology it is somewhat difficult to know exactly which majors the school psychology recruitment research targets. Future school psychology recruitment work should aim to identify undergraduates' majors with greater specificity. This will offer the field greater insight into if recruitment research should be targeted to other related fields such as education or social work.

In contrast to undergraduate students, undergraduate professors were the least represented. It would be useful to gain more understanding of undergraduate professors' knowledge of school psychology since they provide career related information and influence their students' career decision-making (Graves & Wright, 2009). This may be especially relevant for Historically Black Colleges and Universities (HBCUs) given Graves and Wright's (2009) finding that professors at these institutions re-

port having less information about school psychology compared with other psychology subfields and do not believe school psychology professional organizations do an adequate job recruiting their students. Further, there is evidence in the clinical and counseling psychology recruitment research that linkage to predominantly minority serving undergraduate institutions is an effective minority student recruitment strategy (Rogers & Molina, 2006).

Another noteworthy finding is that only three studies sampled school psychology students. Comprising the second most sampled population, there were 1,225 school psychology students represented across all studies. Currently, there are approximately 2,086 students enrolled in APA approved doctoral school psychology programs (APA, 2014) and estimated 9,357 school psychology students nationwide (National Association of School Psychologists [NASP, 2014]). These numbers suggest the opportunity for more studies focused on school psychology students. While Highley and Carlson's (2012) and Graves and Wright's (2007) samples did include large numbers of school psychology graduate students, their results only provided insight into students' reasons for entering school psychology and career aspirations. Only Rogers (2006) examined school psychology students' views of minority recruitment strategies. However, Rogers sample was limited to students enrolled in school psychology programs known for exemplary multicultural training. Thus, there is a need for greater understanding of current school psychology students' experiences regarding what strategies, if any, their programs used to recruit them. Such data from nonminority and minority students at school psychology programs that specialize in multicultural training as well as more traditional programs would be a valuable addition to the research.

Racial and Ethnic Minority Underrepresentation

Based on the demographic information included in the reviewed studies, Blacks were the most represented (8%) racial minority group. However, it is likely that Black representation is higher in the overall percentage of participants because Graves and Wright (2009) did not indicate participants' race or ethnicity. Although

we could not infer this in our results, it is likely that most of Graves and Wright's participants were Black given they sampled students and faculty at HBCUs. This highlights the importance of including participant demographic information related to race and ethnicity when publishing recruitment studies in school psychology.

One explanation for the emergence of work on Blacks is that in recent years, several Black school psychology scholars have centered research strands on efforts to increase Black representation in the profession. Clearly, minority scholars should not be boxed into "diversity focused" research, but this does support Miranda and Gutter's (2002) observation that culturally diverse scholars are likely to research diversity issues and move the literature and field forward in such areas. It is promising that one result of recruiting racially and ethnically diverse individuals into school psychology may be increased scholarly attention to multicultural issues.

Findings also revealed that Asian Americans, Hispanics, and Native Americans are underrepresented in school psychology recruitment studies. These groups are also underrepresented as school psychology practitioners and academics (Castillo et al., 2014). Currently, we know very little about recruitment factors that might appeal uniquely to Asian Americans or Native Americans, or if there are differences between groups in desired recruitment strategies. Indeed, Proctor et al. (2014) noted the critical need for research that examines the impact of recruitment strategies across racial and ethnic groups.

Trends in Minority Recruitment Findings

The two major findings that emerged in the recruitment studies focused on minorities are not surprising and indicate that school psychology programs should actively recruit minorities and offer them financial support. Data trends indicate that school psychology practitioners, school psychology professors, and undergraduate students all agree that active recruitment of minorities and offers of financial support are important recruitment strategies.

The most prevalent other findings suggest that programs' geographic location, minority students' presence, and support (e.g., opportunities for mentorship) being available in pro-

grams are key to attracting minority students. Trends in the data suggest that all participant groups view the location of programs (i.e., close proximity to diverse communities and/or applicants' support systems) and support being available within programs as key recruitment strategies. School psychology faculty, undergraduate professors, and undergraduate students indicated the importance of diverse students' presence at school psychology programs as a recruitment strategy.

One surprising finding was that only one study indicated "flexible admissions" for minority candidates as a recruitment strategy. This finding is consistent with Zins and Halsell's (1986) report that some school psychology programs used flexible admissions criteria as a strategy to attract minority candidates. Although not prominent in the clinical and counseling psychology recruitment research, the inclusion of this strategy in previous school psychology recruitment research suggests that it is a variable worthy of future exploration. The need for more minority focused school psychology recruitment research is evident, but current findings do offer some useful insight.

Implications for Future Research and Practice

Research

One major takeaway from the findings is that more research is needed on how to effectively recruit racial and ethnic minorities into school psychology. To date, most studies have focused on understanding specific populations' knowledge and/or perceptions of the field, with only two (Rogers, 2006; Smith et al., 2013) actually investigating recruitment strategies used by school psychology programs. Despite studies focused specifically on Blacks, these individuals as well as other racial and ethnic minorities remain underrepresented in school psychology. Although Rogers (2006) and Smith et al. (2013) represent valuable contributions to the research, future research using representative, larger national samples of school psychology programs should investigate if programs are using strategies to recruit racial and ethnic minority students, and if so, are these strategies designed to specifically target minorities. National studies that surveyed clinical psychology program di-

rectors have provided valuable insight into effective minority focused recruitment strategies in clinical psychology (Bernal et al., 1983; Muñoz-Dunbar & Stanton, 1999). Importantly, the effectiveness of minority recruitment efforts in school psychology programs should be studied and published in peer-reviewed journals (Bocanegra, 2012; Proctor & Truscott, 2013).

Researchers should design studies that investigate if recruitment strategies function differently based on participants' racial and ethnic group membership (Proctor et al., 2014). Racially and ethnically diverse samples of school psychology students who have experience with being recruited to their programs would be ideal for such a study. Additionally, researchers should investigate intraracial or intraethnic group differences when conducting recruitment studies. For instance, a third generation Mexican American applicant may view recruitment strategies differently than a recent immigrant from the Dominican Republic. Although both are typically identified as "Hispanic/Latino," researchers cannot uncover if differences exist in their views/experiences of effective recruitment strategies if racial/ethnic categorizations are not more nuanced.

Further, research collaborations among scholars interested in diversifying the profession may be useful to move the school psychology recruitment research forward. Such collaborations could facilitate larger scale investigations being conducted and their results published faster than one or two scholars working diligently, but separately. Collaborations can also increase the rigor of research because of each collaborators' unique skills and talents. Considering the current recruitment research utilizes varied methodologies, collaborations might strengthen this research in terms of more rigorous mixed-methods studies being conducted by qualitative and quantitative expert collaborators. Collaborators can also support one another in searching for funding to expand this research given that recruitment may be understudied because sources of financial support are not readily available.

Practice

The existing school psychology minority recruitment research provides guidance for fac-

tors that are important to attracting minority candidates. Consistent findings across most studies indicate that programs should actively recruit minorities, particularly from predominantly minority serving undergraduate institutions, and provide them with financial support. These specific recommendations have been present in the minority student recruitment literature in clinical and counseling psychology for decades (Muñoz-Dunbar & Stanton, 1999). Because research suggests that undergraduates in general (Stinnett et al., 2013), and minority undergraduates, in particular (Graves & Wright, 2009), are less aware of school psychology as a career option, the field must, at the very least, engage in ongoing, targeted minority student recruitment efforts to increase minority representation.

Following the scientist-practitioner model, school psychology faculty should use existing minority recruitment research to focus their efforts on active recruitment of minority students. While Rogers (2006) described the recruitment strategies used by a small number of school psychology programs known for exemplary multicultural training and Smith et al. (2013) explored general and minority specific recruitment strategies using a larger sample of school psychology programs, faculty at all school psychology programs should keep data on minority student recruitment efforts. This should include effectiveness data using mixed-methods that incorporate current minority students' views and ratings of programs' recruitment strategies. Based on program level findings and published research, Division 16 of APA and NASP should collaborate on a guidance document that details best practices in minority student recruitment in school psychology.

Practically, it may be difficult for researchers to study minority recruitment in school psychology given few funding sources. School psychology organizations should join forces to sponsor research grant competitions for those interested in studying this issue. Implementing minority recruitment strategies, studying the effects of such strategies, and disseminating findings take time, effort, and financial resources.

Limitations

This study aimed to present a structured review of the published school psychology re-

cruitment research over a 20-year span. Recruitment studies conducted before January 1994 or after December 2014 were not included. The studies identified were limited to those that matched specified subject search terms. We acknowledged this limitation by reviewing the reference pages of studies that initially met inclusion criteria to decrease the chance that we missed a study. Still, we may have missed peer-reviewed studies published in journals that did not appear in our search engine. We also did not include any study that was not published in a peer-reviewed journal. It is likely that school psychology recruitment is a topic for theses and dissertations, as well as state and national conference presentations.

Conclusion

In summary, this structured review of the school psychology research found 10 studies focused primarily on recruitment from 1994–2014. Of these studies, five focused exclusively on recruiting racially and ethnically diverse individuals into the profession. As a result, implications drawn from this research are based on a narrow range of information. However, given the historical and current underrepresentation of racial and ethnic minorities in school psychology recruitment of racial and ethnic minorities is an area ripe for further research. Ultimately, the field's commitment to diversity should be reflected in the racial and ethnic diversity of its graduate students, practitioners, and academics.

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Received August 12, 2015

Revision received December 29, 2015

Accepted February 23, 2016 ■