



Status of School Psychology in 2020, Part 2: Professional Practices in the NASP Membership Survey

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ABSTRACT

In this second report on the 2020 NASP Membership Survey data, details regarding the professional practices of school psychologists employed in schools are highlighted ($n = 1,006$). The data suggest that school psychologists engage in assessment-related tasks above all other professional responsibilities, completing an average of 55 evaluations per year. Additionally, many, but not all, school psychologists are involved in mental health and behavioral health services, and involvement is dependent, in part, upon perceived competency. Additionally, the data suggest that the practices of school psychologists who serve more than 700 students were less likely to be consistent with the NASP Practice Model. Finally, only about 11% of school psychologists reported that they were knowledgeable about social justice. Implications of these results as well as recommendations for future research are discussed.

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Keywords: School Psychology; Professional Practices; Social Justice; Mental Health; Behavioral Health

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School psychologists across the United States engage in a variety of services, including assessment, intervention, and consultation. Yet, the extent to which these services are provided varies based on employment, geography, and professional expectations. Twenty years ago, school psychologists reported spending the majority of their time conducting special education evaluations, with nearly 18% engaging in no counseling practices (Curtis et al., 1999). A decade later, in the 2010 NASP Membership Survey, school psychologists reported that they spent the majority of their time on special education evaluations, with nearly 30% engaging in no counseling practices (Castillo et al., 2012). However, professional services appear to be changing. The most recent NASP Membership Survey in 2015 showed that 90% of school psychologists engaged in special education assessment-related activities, but 71% also reported providing

individual counseling (McNamara et al., 2019). Thus, the roles of school psychologists in more recent surveys were similar to those surveyed in the past few decades in terms of assessment, but there appeared to be some changes towards more mental and behavioral health services.

These changes in professional practice coincided with the professional standards that evolved to expand school psychologists' roles in supporting students' learning and mental health. In 2010, NASP developed the *Model for Comprehensive and Integrated School Psychological Services*, also known as the NASP Practice Model. Updated every 10 years, the most recent version was adopted in May 2020. In this model, there are 10 domains of practice: (a) Data-based Decision Making; (b) Consultation and Collaboration; (c) Academic Interventions and Instructional Supports; (d) Mental and Behavioral Health Services and Interventions; (e) School-Wide Practices to Promote Learning; (f) Services to Promote Safe and Supportive Schools; (g) Family, School, and Community Collaboration; (h) Equitable Practices for Diverse Student Populations; (i) Research and Evidence-Based Practice; and (j) Legal, Ethical, and Professional Practice. These updated professional standards reflect the ongoing movement towards expanding school psychologists' roles in students' learning and mental health with the goal of promoting maximum effectiveness, efficiency, and quality of school psychology services (NASP, 2020). Promotion of the NASP Practice Model is one of the organization's strategic goals, and evaluating the extent to which practicing school psychologists' roles are consistent with this framework is one primary purpose of this report.

To understand the evolving role of school psychologists, NASP conducts a survey of its membership every 5 years. This report is Part 2 of a series; the first report (Goforth et al., 2021) covers demographics of school psychologists, while this report highlights results from the 2020 NASP Membership Survey related to the domains of school psychology practice. Specifically, this report examines school psychologists' perceptions of their roles, and the specific tasks they complete (e.g., assessment, intervention, consultation). Consistent with NASP's commitment to social justice, questions regarding school psychologists' knowledge and activities related to social justice were added during the 2020 survey cycle, and data from those responses are also presented.

This report on the 2020 NASP Membership Survey was written for several purposes stemming from NASP's strategic goals. Specifically, we sought to report on (a) the types and frequency of professional practices of school psychologists, (b) the degree to which school psychologists reported their practice was consistent with the NASP Practice Model, (c) school psychologists' engagement in mental and behavioral health services, and (d) school psychologists' knowledge and engagement with social justice activities. Finally, given the importance of understanding how the ratio of student-to-school psychologist influences practice, we explored whether ratios resulted in significant differences in school psychologists' professional practices.

METHOD

Every 5 years, the NASP Research Committee implements a survey of members in collaboration with NASP's Director of Research. This survey is designed to collect information regarding the demographics, practices, and characteristics (e.g., position, credentials, and competencies) of school psychologists. Participants are presented with multiple choice and fill-in-the blank questions. The 2020 NASP Membership Survey can be retrieved on the NASP website: <https://www.nasponline.org/research-and-policy/nasp-research-center/member-surveys>.

We considered several aspects of implementation of the current survey for the 2019–2020 school year. Some of the main considerations included the degree to which the COVID-19 pandemic may have affected practice, as well as updates to the NASP Practice Model and information related to the NASP Strategic Goals, as requested by the Board of Directors. Additionally, some changes were made to the demographics portion of the survey to be more inclusive of the range of diversity present in the field. These considerations and changes are discussed at length in the previous report of the data (see Goforth et al., 2021).

Participants

NASP membership is composed of over 25,000 school psychologists, graduate trainers, graduate students, and related professionals. Though the range of self-selected membership types vary, the population pool from which the sample

was selected include Regular and Early Career members. Regular members are members of NASP who are (a) trained in school psychology, (b) certified by the National School Certification System, (c) credentialed by a state as a school psychologist, or (d) working 50% or more as a faculty member in a school psychology graduate program. Early Career members are defined as those who have recently graduated from a school psychology graduate program and have not yet reached their third year of practice.

The R statistical software was used to randomly sample approximately 30% of this pool of members. The sampling was done by state of residence, including Washington, DC and Puerto Rico, in order to maximize geographical representation. From the 3,935 school psychologists sampled, approximately 33% ($n = 1308$) responded to the survey. For the primary purposes of this report, only those responses from NASP members employed in school districts ($n = 1,006$) were analyzed. It should be noted that sample sizes vary for each of the analyses conducted because of missing responses on some scales and items. The sample size is reported with each of the analyses in the Results section of this paper.

Procedure

The NASP Membership Survey was completed in two phases with one addendum phase. In the first phase, an initial email was sent to the 3,935 randomly sampled members. The email included the purpose of the 5-year NASP Membership Survey, a link to the survey, and information regarding the incentives for survey completion. The second phase included eight reminder emails that were sent to the randomly sampled pool. Finally, an addendum phase was needed because of an administrative error in the initial survey. This phase included a follow-up question asking participants about their work setting sent on December 4, 2020. Unfortunately, due to the anonymous nature of the survey, the follow-up question could not be linked with the original survey the members first completed, and only descriptive information was collected.

Analyses

After the data collection period was completed, a subgroup of the NASP Research Committee, in collaboration with the Director of Research, commenced analysis. Using R (4.0), the data were cleaned and analyzed. Specifically, the R packages of tidyverse (1.3.0), ggstatsplot (0.7.1), rstatix (0.7.0), Hmisc (4.4.1), skimr (2.1.2), Likert (1.3.5), correlation (0.6), and jmv (2.0) were used. Similar to past survey reports (e.g., McNamara et al., 2019), ratio categories (rather than ratio as a continuous variable) were created to assess whether cut points used in recommendations corresponded to meaningful differences in school psychologist's practices. Four groupings were created: 700 or less ($n = 243$; 29%), 701 to 1,000 ($n = 225$, 26%), 1,001 to 1,500 ($n = 209$; 25%), and 1,500 or more ($n = 174$, 20%). These were selected to be consistent with groupings used in previous NASP Membership Survey reports (e.g., McNamara et al., 2019; Walcott et al., 2015).

To analyze the association between continuous ratio and Likert-rated amount of time spent in a particular professional practice, Kendall's rank correlation coefficient (estimated using τ) was computed. To analyze the association between ordinal categories, such as whether categorical ratio was associated with Likert-rated amount of time spent in a particular professional activity, cross-tabulations were constructed. Accordingly, Kendall's rank correlation coefficients (estimated using τ_b)¹ were calculated to test the strength of the association between ordinal variables. To further evaluate the association between ratio and practice behaviors, school psychologists' reported or calculated ratio (i.e., continuous) was correlated with the number of total evaluations, counseling cases, counseling groups, and professional development offerings using Pearson Product Correlation Coefficients (r). To appropriately interpret τ_b and r statistics and related p -values for the various association tests conducted, false discovery rate (FDR; i.e., the expected proportion

¹ Kendall's rank correlation (Kendall's τ) is used to estimate the nonparametric association when ordinal variables are included. We calculated Kendall's τ_b for ordinal ratio and likert-rated professional practices. Kendall's τ_b better accounts for ties in data and reduces to τ in the absence of ties (Kendall, 1970). Kendall's τ and τ_b can be interpreted like other measures of association, where ± 1 is a perfect association and as the coefficient approaches 0, the association between the two variables becomes weaker. Furthermore, the direction (i.e., positive, negative) of the association is indicated by the sign of the coefficient. In all cases, τ_b was calculated in R using the jmv package (v. 2.0; Selker et al., 2021).

of positive results that are actually false) was managed using the Benjamini-Hochberg FDR correction² (Benjamini & Hochberg, 1995) in R. This procedure helps to minimize the risk that we will find an association between variables where none exists.

RESULTS

In the following sections, we describe (a) the types of school psychology practices participants reported engaging with that are consistent with the NASP Practice Model, and (b) attitudes and practices of participating school psychologists related to social justice. Unless specified otherwise, the data presented are collected from school psychologists employed full-time in school districts ($n = 1,006$). However, the sample size varies by analysis depending upon the completion rate of items. The sample size will be provided when it is different from the total sample size. For convenience, we have

Table 1. Demographic Information for Full-Time School-Based School Psychologists

	Mean (SD)	Range	<i>n</i> (%) Missing
Age	42.7 (11.4) [95%CI 42, 43]	25 to 79	0
	<i>n</i>	% [95% CI]	<i>n</i> (%) Missing
Ethnicity	-	-	0 (0%)
Arab, Middle Eastern, or North African	7	0.7 [< 0.1, 4.9]	-
Hispanic or Latinx	77	7.7 [3.9, 14.6]	-
Prefer to self-describe	67	6.7 [3.2, 13.4]	-
Prefer not to answer	44	4.4 [1.8, 10.4]	-
Race	-	-	0
American Indian or Alaskan Native	7	0.7 [< 0.1, 5.0]	-
Asian	24	2.4 [0.7, 7.6]	-
Black or African American	39	3.9 [1.5, 9.7]	-
Native Hawaiian or Other Pacific Islander	1	0.1 [< 0.1, 3.9]	-
White	851	85.7 [77.6, 91.3]	-
More than one race	27	2.7 [0.9, 8.0]	-
Prefer to self-describe	18	1.8 [0.4, 6.7]	-
Prefer not to answer	26	2.6 [0.8, 7.9]	-
Gender	-	-	0
Female	869	87.5 [79.6, 92.6]	-
Male	118	11.9 [6.9, 19.7]	-
Nonbinary	1	0.1 [< 0.1, 3.9]	-
Prefer to self-describe	2	0.2 [< 0.1, 4.1]	-
Prefer not to answer	3	0.3 [< 0.1, 4.3]	-
Disability Status	-	-	0
Yes	56	5.6 [2.5, 12.0]	-
No	924	93.1 [86.4, 96.7]	-
Prefer not to answer	13	1.3 [0.3, 5.9]	-

Note. Missing percent is based on total $n = 993$. No exclusions have been made for outliers in this table. Confidence intervals were calculated using DescTools (version 0.99.41; Signorell, 2021) in R (4.0.0). From “Status of school psychology in 2020: Demographics of the NASP membership survey,” by A. N. Goforth, R. L. Farmer, S. Y. Kim, S. C. Naser, A. B., Lockwood, & N. W. Affrunti, N. *NASP Research Reports*, 5(2), p. 4 (https://www.nasponline.org/Documents/Research%20and%20Policy/Research%20Center/NRR_2020-Membership-Survey-P1.pdf). Copyright 2021 by the National Association of School Psychologists.

² Given the exploratory nature of these analyses, we chose to adjust for the false-discovery rate (FDR). Adjusting for the FDR using the Benjamini-Hochberg correction increases the power of the analysis while adjusting for the false positive rate below a certain level (e.g., 5% was used in this paper). We used the `p.adjust` function in R (v 4.0) and its default settings to calculate FDR-adjusted *p* values in this manuscript.

Table 2. Professional Characteristics for Full-Time School-Based School Psychologists

	Mean (SD)	Range	<i>n</i> (%) Missing
Years of Experience	12.4 (9.57) [95% CI 12, 13]	0 to 52	0
Ratio	1,233 (1,285) [CI 1144, 1322]	0 to 16,667	192 (19%)
	<i>n</i>	% [95% CI]	<i>n</i> (%) Missing
Highest Degree in School Psychology	-	-	0
Master’s level only	93	9.4 [5.1, 17.0]	-
Specialist level	736	73.6 [64.7, 82.0]	-
Doctoral level	164	16.5 [105, 25]	-
Credentials	-	-	46 (4.6%)
American Board of Professional Psychology	1	0.1 [< 0.1, 0.5]	-
American Board of School Neuropsychology	19	1.9 [1.2, 3.0]	-
Board Certified Behavior Analyst	12	1.2 [0.6, 2.1]	-
Licensed Professional Counselor	24	2.4 [1.6, 3.6]	-
Licensed Psychologist	97	9.8 [8.0, 12.0]	-
Nationally Certified School Psychologist	652	65.7 [63.0, 73.0]	-
State Department of Education	947	95.4 [94.0, 97.0]	-
Teaching Credential	130	13.1 [11.0, 15.0]	-
Setting	-	-	87 (8.8%)
Frontier	1	0.1 [<0.1, 0.5]	-
Rural	188	20.8 [17.0, 22.3]	-
Suburban	475	52.4 [49.0, 55.9]	-
Urban	224	24.7 [21.1, 28.2]	-
Contract Length	-	-	87 (8.8%)
10-month/Approximately 180–190 days	587	64.8 [61.7, 68.0]	-
11-month/Approximately 191–200 days	214	23.6 [20.5, 27.0]	-
12-month/greater than 200 days	105	11.6 [8.5, 15.0]	-

Note. No exclusions have been made for outliers in this table. Missing percent is based on total *n* = 993. Confidence intervals were calculated using observed *n* via the Wilson approach in DescTools (version 0.99.41; Signorell, 2021) in R (4.0.0). From “Status of school psychology in 2020: Demographics of the NASP membership survey,” by A. N. Goforth, R. L. Farmer, S. Y. Kim, S. C. Naser, A. B., Lockwood, & N. W. Affrunti, N. *NASP Research Reports*, 5(2), p. 5 (https://www.nasponline.org/Documents/Research%20and%20Policy/Research%20Center/NRR_2020-Membership-Survey-P1.pdf). Copyright 2021 by the National Association of School Psychologists.

reproduced the demographic tables for our survey that were published in Part 1 (Tables 1 and 2; Goforth et al., 2021), but refer interested readers to the narrative and discussion of those results.

Professional Practices and Historical Trends

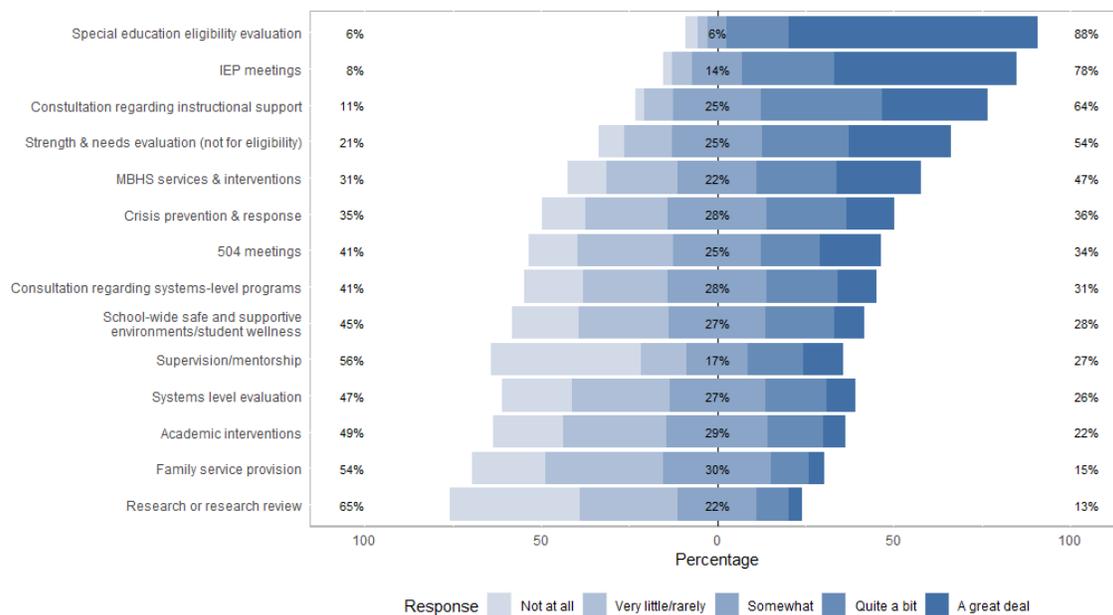
School psychologists engage in a variety of direct and indirect services, consistent with their broad training (NASP, 2020). As with past surveys (e.g., Castillo et al., 2012; McNamara et al., 2019), school psychologists were asked to report the number of individual and group cases they completed by student-level service during the 2019–2020 school year (see Table 3). In addition, school psychologists were asked to rate how they spend their time regarding a broad range of professional practices (see Figure 1).

Table 3. Professional Practices of Full-Time, School-Based School Psychologists (N = 827)

Professional Practice	<i>n</i>	Percent of Respondents Engaging in Practice	Mean Number of Cases (Std. Dev)	Median (Range)
Initial Evaluations for Special Education	750	91%	23.5 (26.9)	16 (0–450)
Reevaluations for Special Education	778	94%	31.5 (24.5)	26 (0–180)
Inservice Programs Conducted	405	49%	2.6 (5.1)	1 (0–80)
Parent Groups or Presentations	111	13%	1.3 (6.7)	0 (0–90)
Students Counseled Individually: Mental/Behavioral Health Services	528	64%	10.9 (22.1)	5 (0–300)
Students Counseled Individually: Academic Services	308	37%	4.6 (15.2)	0 (0–300)
Students Counseled Individually: Other	62	8%	0.99 (6.9)	0 (0–155)
Counseling Groups (not sessions): Mental/Behavioral Health Services	255	31%	2.3 (7.8)	0 (0–150)
Counseling Groups (not sessions): Academic Services	76	9%	0.6 (3.5)	0 (0–90)
Counseling Groups (not sessions): Other	26	3%	0.7 (13.9)	0 (0–400)

Note. Statistics are based on the number of respondents who completed this section of the survey, *n* = 827. The column labeled *n* is the number of respondents of the 827 who endorsed engaging in each professional practice.

Figure 1. Percentage of Participants Who Reported Spending Time on Various Professional Tasks, Arranged by Most Frequent Engagement



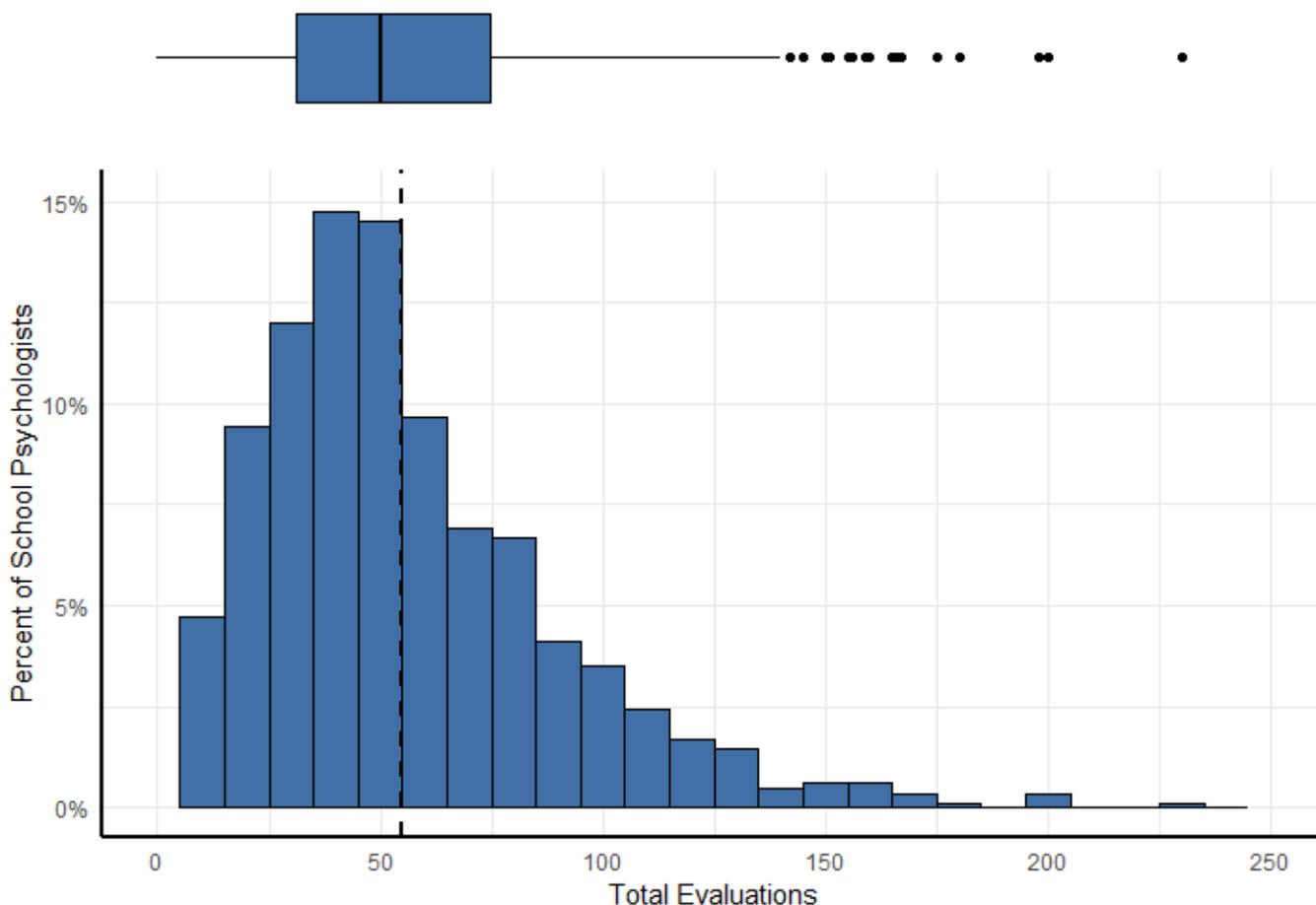
Note. Light shades (left of center) indicate the percentage of those engaging in tasks “not at all” or “very little/rarely”; the combined percentage is indicated to the far left. The percentage of those engaging “somewhat” in tasks is displayed in the center. Darker shades (right of center) indicate the percentage of those engaging in tasks “quite a bit” or “a great deal”; the combined percentage is indicated to the far right. IEP = Individualized Education Program, MBHS = Mental/Behavioral Health Services.

Special Education Evaluations

First, results of the survey showed that the majority of school psychologists primarily completed special education evaluations, which is consistent with the results of the 2015 NASP Membership Survey. Specifically, 91% of school psychologists reported spending their time completing special education initial evaluations and 94% reported completing reevaluations. Approximately 88% of school psychologists reported spending a great deal of their time completing evaluations and 78% were involved in related work (e.g., Individual Education Program [IEP] meetings).

These findings are consistent with the results of the 2015 NASP Membership Survey, in which school psychologists reported an average of 24 (median = 16) initial evaluations and 32 (median = 26) reevaluations for special education (McNamara et al., 2019). These values were not significantly different in 2020 (27.5 and 32.1 for initial evaluations and reevaluations, respectively), or from previous years. School psychologists completed an average of 55 initial and reevaluations (median = 50) combined (see Figure 2). When examining the trends in the number of evaluations (see Figures 3 and 4), there is an increase in the number of school psychologists completing more than 50 reevaluations; however, the average number of evaluations are similar between 2015 and 2020.

Figure 2. Histogram and Box Plot of Combined Initial Evaluations and Reevaluations Completed by School Psychologists



Note. One outlier (x = 525) was removed.

Figure 3. Percentage of Full-Time, School Based School Psychologists Who Completed Less Than 25, Less Than 50, or More Than 100 Initial Evaluations by Survey Year

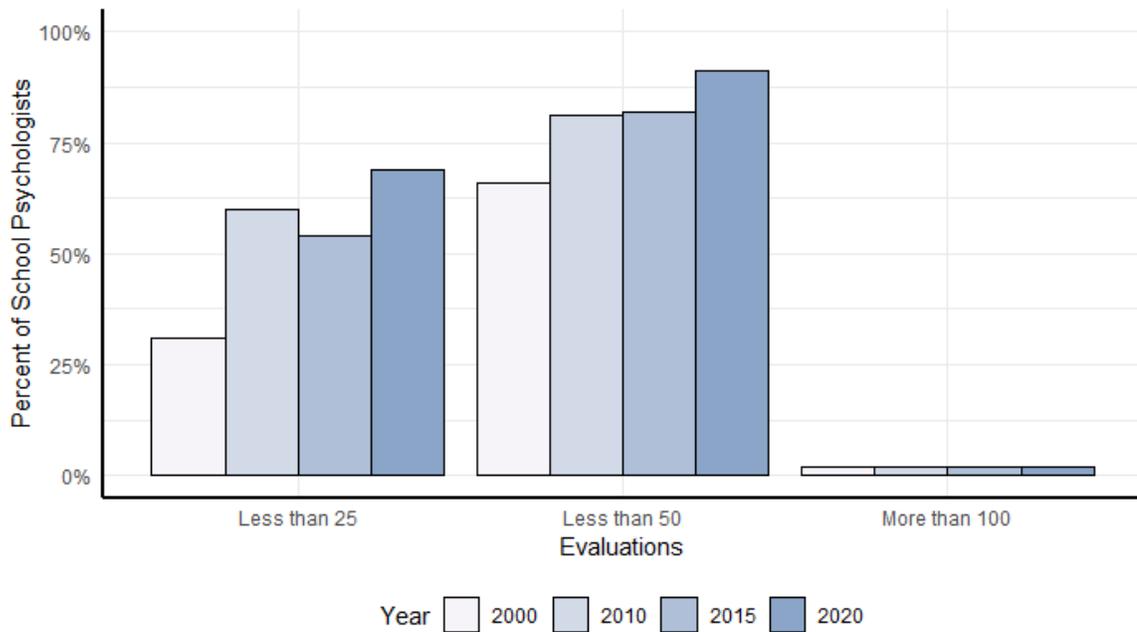
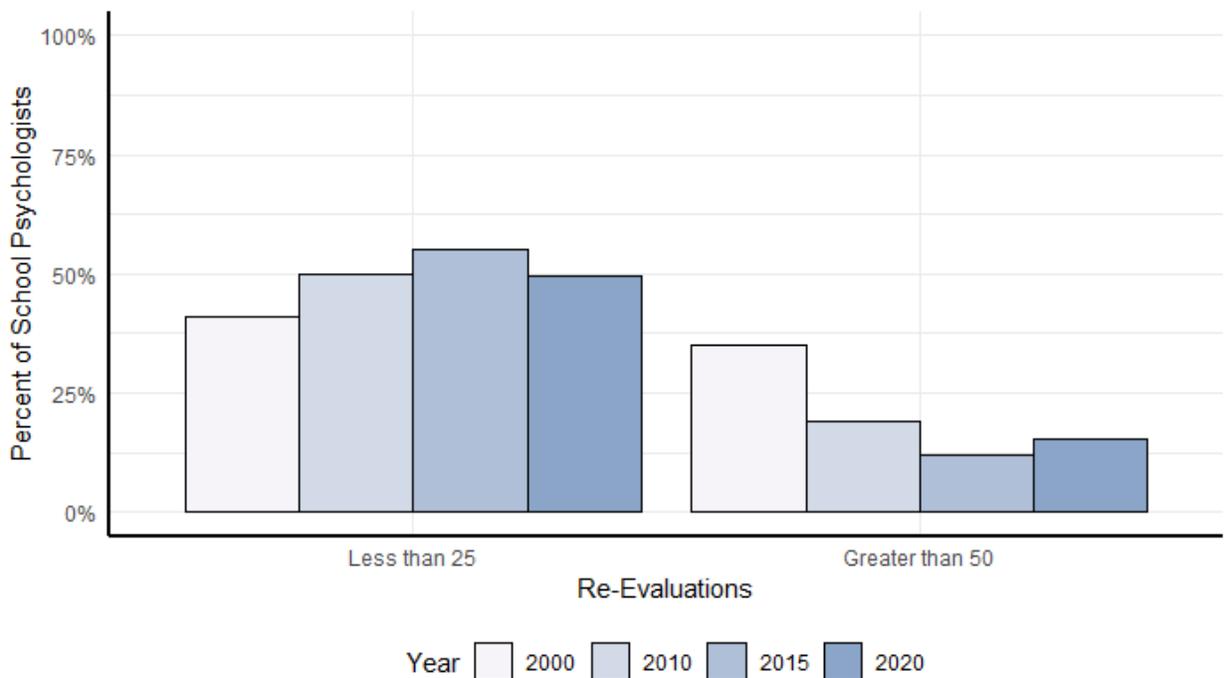


Figure 4. Percentage of Full-Time, School-Based School Psychologists Who Completed Less Than 25 or Greater Than 50 Reevaluations by Survey Year



Professional Development and Training

Second, the results of the NASP Membership Survey showed that less than half of school psychologists conducted professional inservice programs. Specifically, 49% of school psychologists reported that they conducted such programs during the 2019–2020 school year, compared to 67% of participants in 2015. Similarly, a notably higher percentage of school psychologists in 2015 reported providing parent programs (30.5%) compared to current data (13%). Despite this decrease, the average number of programs offered by school psychologists did not decrease drastically (from 1.6 to 1.3). These data suggest that while fewer school psychologists were offering presentations to parents, those who did implement such programs increased the numbers of programs. Importantly, it is unclear how these services were impacted by physical distancing guidelines and school closures as a result of the COVID-19 pandemic.

Mental and Behavioral Health Services

Third, results of the survey found that many, but not all, school psychologists are involved in mental health and behavioral health services. That is, of the total sample, 827 school psychologists responded to items related to the provision of mental and behavioral health services (MBHS; e.g., individual counseling). Of those participants, the majority (88%) reported that they were at least moderately capable (i.e., moderately capable, capable, or very capable) of providing MBHS. Similarly, when asked how often they provide MBHS (e.g., from “Not at All” to “Very Often”), approximately 3% reported that they do not provide MBHS, while 17% reported rarely, 24% reported sometimes, 26% reported often, and 28% reported that they provide MBHS very often.

When examining school psychologists' involvement in mental and behavioral health services, there was a trend showing that those who feel more capable in providing these services are also more likely to be engaged in those services. Specifically, among the 814 school psychologists who provided complete data for these two ordinal variables, there is a clear and significant trend indicating that as MBHS capability increases, so does MBHS engagement (*Kendall's* $\tau_b = .368$, $t = 12.5$, $p < .001$). Table 4 reports a cross tabulation of the ordinal MBHS capability with ordinal MBHS engagement items.

Table 4. Cross Tabulation of Mental and Behavioral Health Service Capability and Engagement

Capable MBHS	MBHS Engagement					Total
	Not at all	Rarely	Sometimes	Often	Very Often	
Not at all capable	2 (33.3%)	4 (66.7%)	0 (0%)	0 (0%)	0 (0%)	6 (100%)
Slightly capable	10 (12.7%)	31 (39.2%)	30 (38.0%)	5 (6.3%)	3 (3.8%)	79 (100%)
Moderately capable	10 (4.3%)	52 (22.6%)	74 (32.2%)	68 (29.6%)	26 (11.3%)	230 (100%)
Capable	1 (0.3%)	37 (11.9%)	65 (20.9%)	97 (31.2%)	111 (35.7%)	311 (100%)
Very capable	7 (3.7%)	14 (7.4%)	28 (14.9%)	45 (23.9%)	94 (40%)	188 (100%)
Total	30 (3.7%)	138 (17.0%)	197 (24.2%)	215 (26.4%)	234 (28.7%)	814 (100%)

Note. MBHS = Mental and behavioral health services. Data for each ordinal response are presented as observed (percent within row). Individuals who reported that they were not in a direct service role ($n = 13$) were excluded from this analysis; only those with complete data on both variables ($n = 814$) were included in this analysis. The row marked Total reports observed (percent of total) within MBHS Engagement.

Individual Counseling Services

Among those school psychologists who indicated they provide mental and behavioral health services, most provided individual counseling. Specifically, the majority (64%) of participants reported that they provided individual counseling and serving an average of 10.9 students across the year. Additionally, 37% of school psychologists reported engaging in

individual counseling for academic concerns or study skills, serving an average of 4.6 students across the year. In addition, a smaller set of participants (8%) reported providing individual counseling services for other types of concerns such as social skills, family relationships, and college counseling. Data regarding group and academic counseling services were not collected during the 2014–2015 academic year. The percentage of school psychologists providing individual MBHS has slightly decreased from previous years; for instance, in 2015, approximately 72% of school psychologists reported providing individual counseling for mental and behavioral concerns. However, the average number of cases from 2015, 10.2 students per year, is consistent with current responses (McNamara et al., 2019).

Group Counseling Services

Approximately one third of participants reported providing counseling groups for mental and behavioral health concerns, providing an average of two groups over the course of the year. A much smaller percentage (3%) provided counseling groups for other types of concerns, such as social skills, sexual and gender minority support, and aspiring female leaders. Like individual counseling, a smaller percentage provided group MBHS during the 2019–2020 school year (~31%) than did the 2014–2015 school year (~44%). However, the number of groups offered did not change drastically; 2.8 groups per year were reported in 2014–2015 (McNamara et al., 2019).

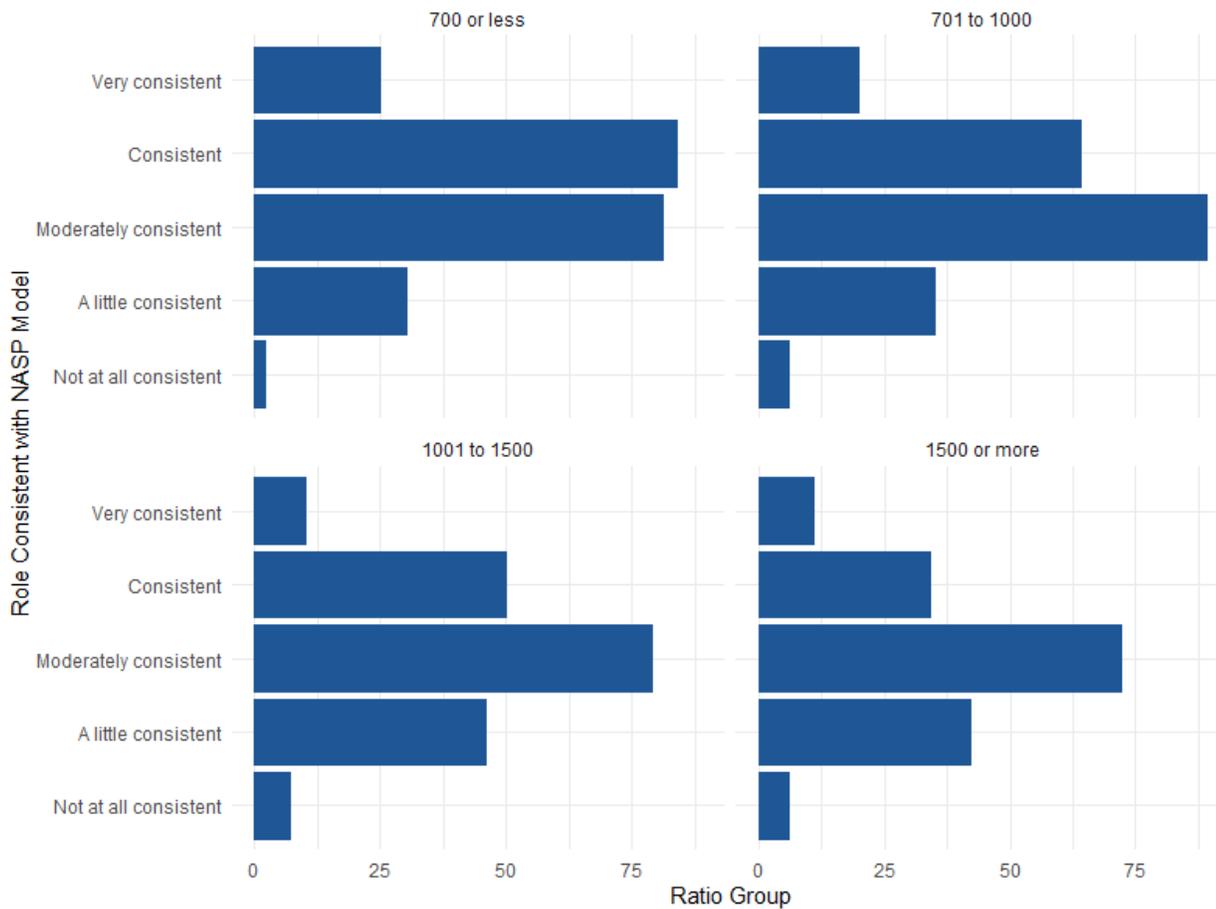
Fewer numbers of school psychologists (9%) engaged in group counseling for academic concerns or study skills, providing on average one group per academic year. The percentage of school psychologists who reported providing academic or study skill groups is significantly lower than the percentage from 2014–2015, down from 18% (McNamara et al., 2019). The number of groups offered has remained approximately the same despite a decrease in the number of school psychologists offering these services.

Impact of Student-to-Psychologist Ratio on Professional Practice

The student-to-psychologist ratio (i.e., the number of students each school psychologist serves) likely impacts the types and breadth of services that a practitioner can provide. As with past reports of the NASP Membership Survey (e.g., McNamara et al., 2019), we evaluated the effect of the ratio on professional practices. First, the ratio was either entered directly or calculated from student and professional data provided as part of the 2020 NASP Membership Survey; these details are reported in Goforth et al. (2021). The 10% trimmed mean ratio was found to be 1 to 1,046 (95% CI = 1,000.51, 1,092.28; arithmetic mean = 1,233; median = 1,000)—well above the current 2020 NASP recommendation of 1 to 500; only about 17% of the participants had a ratio of 1 to 500 or lower (Goforth et al., 2021). Next, school psychologists were asked to rank whether their role was consistent with the 10 domains from the NASP Practice Model (2020) along a five-point ordinal scale: Not at all consistent ($n = 21$, 3%), a little consistent ($n = 157$, 19%), moderately consistent ($n = 331$, 41%), consistent ($n = 239$, 29%), and very consistent ($n = 69$, 8%). Figure 5 depicts how NASP Practice Model consistency varied by ratio grouping.

To evaluate the association between ratio group and reported NASP Practice Model role consistency, we constructed a row-by-column contingency table (Ratio by NASP Practice Model Consistency) and calculated Kendall's τ_b test of significance. When considering the ratio groupings, the difference is statistically significant ($\tau_b = -0.158$, $t = -5.30$, $p < .001$) and the direction of the statistic (-0.158) suggests that as ratio increases, role consistency with the NASP Practice Model decreases (see Table 4). In other words, school psychologists with a ratio of 700 or less were much more likely to report their role being very consistent and consistent (49.1%) than those who reported having 701 to 1,000 (39.3%), 1,001–1,500 (31.3%), or 1,500 or greater (27.3%) ratios. More simply, the practices of school psychologists who serve more than 700 students were less likely to be consistent with the NASP Practice Model.

Figure 5. School Psychologist’s Role Consistency by Ratio Grouping



The Impact of Ratio on Individual Practices

As reported previously, school psychologists reported how frequently they engaged in specific professional practices (see Figure 1). Each school psychologist responded using a five-point ordinal scale to indicate how frequently they engage in each practice: Not at all, very little/rarely, somewhat, quite a bit, or a great deal. For each professional activity, ratio category by professional activity contingency ($r \times c$) tables were created and the association between these ordinal variables were estimated. The results of these analyses and their corrected p values are presented in Table 5. In addition, correlations were calculated between counted variables (i.e., number of evaluations completed, number of individual academic intervention cases, number of individual MBHS cases, number of academic intervention groups, number of MBHS intervention groups, inservice for educators, and presentations for parents). These values are presented in Table 6.

As the ratio category increases (meaning more students per school psychologist), school psychologists reported less engagement in (a) MBHS and interventions, (b) crisis intervention and response, (c) 504 planning and meetings, (d) program evaluation, (e) consultation regarding instructional supports, (f) school-wide and systems-level programming (e.g., for violence prevention, bullying), and (g) safe and supportive school environments and wellness. School psychologists in higher ratio categories (e.g., 1,001 to 1,500 students per school psychologist) reported higher engagement in evaluations ($\tau_b = 0.15$, $t(800) = 4.83$, FDR-adjusted $p < .001$); this was the only statistically significant association in this analysis that was positive. Even when the ratios are considered continuously rather than categorically (e.g., < 700 , $700\text{--}1,000$, $1,001\text{--}1,500$, $> 1,500$), the correlation between the ratio and the number of

Table 5. Association Between Professional Activities and Ratio Categories, Corrected for False Discovery Rate

Professional Activity	Ratio Category			
	r	τ_b	FDR Adjusted p -value	
Special Education eligibility evaluations	0.15	0.15	0.00	**
IEP meetings	-0.03	-0.03	0.42	
Consultation Regarding instructional Supports	-0.06	-0.07	0.03	*
Strengths & needs evaluation (not for eligibility)	-0.05	-0.05	0.08	
MBH Services & Interventions	-0.21	-0.22	0.00	**
Crisis Intervention & Response	-0.14	-0.16	0.00	**
504 Meetings	-0.07	-0.07	0.02	*
Consultation regarding systems-level programs	-0.13	-0.15	0.00	**
School-wide safe and supportive environments/student wellness	-0.19	-0.20	0.00	**
Supervision/mentorship	-0.00	-0.01	0.81	
Systems level evaluation	-0.13	-0.14	0.00	**
Academic interventions	-0.05	-0.06	0.06	
Family service provisions	-0.17	-0.18	0.00	**
Research or research review	-0.04	-0.05	0.11	

Note. r was used to describe the association between ratio (continuous) and frequency of engagement in a professional activity (rated on a five-point ordinal scale). Next, row-by-column tables wherein professional activity were associated with ratio category (four-point ordinal groupings). Kendall's Rank Correlation Coefficients (τ_b) were produced for each comparison. P -values were calculated based on the τ_b estimate, though p -values were not meaningfully different between the two estimates. Because of the potential for false positives amongst the 14 related comparisons, the p -values were corrected using Benjamini-Hochberg false discovery rate correction. r = Kendall's Rank Correlation Coefficient; τ_b = Kendall's Rank Correlation Coefficient, type b. FDR = Benjamini-Hochberg false discovery rate corrected.

* = significant at $p = .05$; ** = significant at $p = .001$; Note that all comparisons significant at $p = .01$ were also significant at $p = .001$.

evaluations is also statistically significant and positive ($r = .26, p < .001$). Note that some assessment related tasks (i.e., strengths and needs assessment unrelated to eligibility determination and IEP meetings) were not statistically different as ratio changed. No other professional activities were significantly correlated with the school psychologist to student ratio.

Table 6. Pearson Product Moment Correlation Coefficients and False Discovery Rate Adjusted p Values for Ratios and Count of Services Provided

Variables	r	95% CI	$t(800)$	FDR Adjusted p value	
Total Evaluations	0.26	0.19, 0.32	7.59	< .001	**
Academic Intervention Cases	0.01	-0.06, 0.07	0.15	0.916	
MBHS Intervention Cases	-0.04	-0.11, 0.03	-1.13	0.347	
Academic Intervention Groups	-0.02	-0.09, 0.05	-0.54	0.715	
MBHS Intervention Groups	-0.06	-0.13, 0.01	-1.80	0.119	
Training for Educators	0.04	-0.02, 0.11	1.26	0.291	
Presentations for Parents	0.02	-0.05, 0.08	0.43	0.744	

Note. All r estimates are Pearson Product Moment Correlation Coefficients. All p values are adjusted for false discovery rate using the Benjamini-Hochberg (1995) procedure. Only data for which there were complete data for all variables, $n = 800$, were used in these calculations.

Social Justice

The 2020 NASP Membership Survey was the first to ask school psychologists about their knowledge and engagement in social justice-related activities. School psychologists were asked to rate the extent to which they believed that they had adequate knowledge about social justice issues in school psychology. Overall, only about 11% of school psychologists reported that they were knowledgeable or very knowledgeable of social justice as part of school psychology practice. School psychologists responded that they were not very knowledgeable ($n = 21$; 2.6%), a little knowledgeable (19.2%), moderately knowledgeable (39.8%), knowledgeable (2.5%), and very knowledgeable (8.5%), with years of experience negatively associated with social justice knowledge ($\tau_b = -0.09, p < .001$). This suggests that school psychologists trained more recently are more familiar with social justice frameworks.

In addition to asking about school psychologists’ social justice knowledge, participants were asked the frequency in which they engaged in social justice activities in their work setting (e.g., supporting youth from marginalized backgrounds, advocating for equitable practices). Response options included: did not engage at all (8.3%), rarely (21.3%), sometimes (39.2%), often (22.9%), or very often (8.2%).

We anticipated that knowledge of social justice was likely associated with social justice engagement. There was a statistically significant and positive association between a school psychologist’s knowledge of and engagement with social justice ($\tau_b = 0.491, p < .001$). Finally, the current data did not support an association between ratio and social justice engagement ($\tau = -.045, p = 0.09$).

Table 7. Cross Tabulation of Social Justice Knowledge and Engagement

Social Justice Knowledge	Social Justice Engagement					Total
	Not at all	Rarely	Sometimes	Often	Very often	
Not very knowledgeable	13 (62%)	8 (38%)	0 (0%)	0 (0%)	0 (0%)	21 (100%)
A little knowledgeable	29 (21%)	50 (37%)	48 (35%)	9 (7%)	0 (0%)	136 (100%)
Moderately knowledgeable	16 (5%)	88 (27%)	165 (51%)	54 (17%)	2 (< 1%)	325 (100%)
Knowledgeable	8 (3%)	26 (10%)	97 (37%)	104 (39%)	30 (11%)	265 (100%)
Very Knowledgeable	2 (3%)	2 (3%)	10 (15%)	20 (29%)	35 (51%)	69 (100%)
Total	68 (8%)	174 (21%)	320 (39%)	187 (23%)	67 (8%)	816 (100%)

Note. MBHS = Mental and behavioral health services. Data for each ordinal response are presented as observed (percent within row). Only those with complete data on both ordinal variables ($n = 816$) were included in this analysis. The row marked Total reports observed (percent of total) within MBHS Engagement.

DISCUSSION AND IMPLICATIONS

Every 5 years, NASP conducts a membership survey to better understand the demographics, workplace characteristics, and professional practices of school psychologists. This report documents the responses of school psychologists as they pertain to professional practices, including engagement in assessment, mental and behavioral health services, consultation, and related tasks. In addition, and in line with NASP’s strategic goals, this report also documents school psychologists’ reported knowledge and engagement with social justice activities. The discussion will briefly review and communicate the major findings from the analyses of survey data.

Professional Practices and the Influence of Student-to-School Psychologist Ratio

As has historically been the case, professional responsibilities related to special education evaluations and eligibility determination continue to consume the majority of school psychologists' time. Approximately 91% of participants reported that they completed special education eligibility-related assessment activities, with most school psychologists completing between 50 and 55 initial or reevaluations per year. These estimates are not markedly different from estimates from past years (e.g., McNamara et al., 2019). In addition, assessment-related tasks such as eligibility evaluation, attending IEP meetings, and strengths and needs evaluation for purposes other than special education eligibility were all in the top five tasks school psychologists reported. Beyond assessment, school psychologists also spent a great deal of time providing consultation regarding instructional support, with 64% of school psychologists engaging in this activity "quite a bit" or "a great deal" of the time. Finally, providing mental and behavioral health services and interventions consumed a significant portion of school psychologists' time, with 47% of school psychologists reporting that they spent "quite a bit" or "a great deal" of time in these activities.

Moving beyond the top five professional practices, we can see that fewer than half of school psychologists are engaging in other activities at least "quite a bit." While some tasks may be somewhat limited by opportunities to respond (e.g., crisis prevention and response), others are not limited in this way and have been found to be important to student success (e.g., school-wide safe and supportive environments/student wellness). Given that the school psychologists' time is finite, it is likely that a school psychologists' student ratio plays a role in determining their professional practices.

Consistent with past research (Eklund et al., 2017; McNamara et al., 2019), the exploratory analyses completed as part of this report suggest that there is some association between student-to-school psychologist ratio and professional activities. That said, the most consistent finding is that as ratio increases, so do eligibility evaluations. Regardless of the statistical approach used (i.e., continuous ratio by Likert rating, continuous ratio by number of evaluations, and ordinal ratio by Likert rating), school psychologists responsible for a greater number of students were engaging in more assessment. However, this pattern did not hold for other practice areas. Specifically, we observed statistically significant, negative associations between both continuous and ordinal ratings of ratio and providing instructional support, MBHS, crisis prevention and response, systems-level consultation of varying types, and family services. Said another way, as the ratio of school psychologists to students increased, school psychologists engaged in more activities associated with assessment but fewer related to MBHS and other nonassessment services.

The ratio associations did not hold when using the continuous ratio by the number of MBHS cases and groups, professional inservices offered, or parent presentations. However, school psychologists were providing fewer of these types of services in general. For instance, the median number of parent presentations was 0. As such, regardless of ratio, it may be that school psychologists are engaging in very few independent tasks of this nature. Furthermore, an individual MBHS intervention case with a single student may take a substantial amount of time. As such, this approach to substantiating the pattern observed with the Likert ratings is underpowered (i.e., a larger sample is needed) and unlikely to find an effect even if one exists.

Thus, these data seem to tentatively support the notion that as ratio increases, school psychologists engage less in services related to mental and behavioral health, instructional support, crisis prevention, and systems level support. Given the high value placed upon these services by NASP (2020) and the increased need for services related to social-emotional health in the schools, increasing the number of school psychologists and the number of school psychology positions is of the utmost importance. However, these data do not address whether school psychologists are happy with their current roles, or which aspects of NASP's Practice Model they would prefer to integrate into their professional roles.

It is clear that, as a field, we must continue to advocate for school psychologists using the breadth and depth of their training, including preventive work and skills in supporting student mental health. School psychologists are uniquely trained to support student social, emotional, and behavioral development. They are equipped to implement mental health supports at the whole school, targeted, and individual student level. School psychologists also live at the intersection of important ecological systems in the life of a child and can bridge these systems to maximize support for students. However, the NASP Membership Survey trends indicate that while school psychologists are engaging in

mental health services at higher rates than previously observed, they are still primarily engaging in assessment. Although assessment is important, these trends represent an underutilization of school psychologists' skills and a lack of engagement in prevention and early intervention practices. Findings also suggest that the workloads of school psychologists are continually being added upon despite their finite resources and time. The work of school psychologists supporting student mental health may be especially important given increased mental health concerns rising from economic distress, and the fact that COVID-19 pandemic is occurring in the context of preexisting social and health disparities.

The importance of school psychologists in education is evidenced by the increasing demand for school psychology services. To meet these demands, system level changes in assessment practices and service delivery are needed. This includes engaging school psychologists in system level prevention programming, designing multitiered systems of support, and deemphasizing unnecessary or otherwise low-value assessment practices. It is also true that the field must continue to expand training programs and recruit and retain future school psychologists. In recent years, the African American subcommittee of NASP's Multicultural Affairs Committee has run the NASP Exposure Project (NASP-EP) to expose high school students and graduates to careers in school psychology. Continued support for NASP-EP and similar efforts are one way to continue to expand recruitment.

Social Justice in School Psychology

There has been continued emphasis in the field and explicitly by NASP on the importance of engaging in social justice as part of school psychology practice. School psychologists reported needing more training in social justice-oriented approaches, with approximately 33% indicating that they are "knowledgeable" and only 8% indicating they are "very knowledgeable" on issues pertaining to social justice in school psychology. Given the strong, negative association between social justice knowledge and years of experience (and thus, when a school psychologist received their graduate training), continuing professional development in social justice frameworks for practice seem warranted. Furthermore, only 31% of school psychologists indicated that they often or very often engaged in social justice activities in their work settings. Thus, it appears that social justice may not be core to many school psychologists' professional lives. However, it is clear that engagement is associated with—and perhaps dependent upon—knowledge of social justice. As such, continued professional development and dissemination activities may be warranted.

Limitations

It is important to recognize the limitations of the present survey. First, the NASP Membership Survey is designed to be administered once every 5 years; the items on the survey are held as similar as possible between administrations to promote comparison and the detection of trends over time. While there are strengths to this design, it also poses several challenges. First, while it is important to keep the surveys consistent over time, doing so means that modifying items to reflect contemporary issues (e.g., demographics, teleassessment) reduces how easily the survey can be compared to past editions. As such, modifications to the survey tend to be made gradually over time to maintain comparability as much as possible. While this helps to maintain the functionality of making comparisons and detecting trends, it means that the survey may not always be as responsive as desired to contemporary issues.

A second factor associated with this administration of the NASP Membership Survey and its connection to past surveys is the underlying assumption that the sample of school psychologists is representative of a larger population of school psychologists. Because the participants in each survey are randomly sampled from the total population, direct comparison between individuals is not possible. As such, the results of statistical tests comparing participants from the current survey to results from past or future surveys should be viewed as exploratory and interpreted with caution. Further, as school psychologists retire and others join the profession, the population shifts. As such, the claims and generalizations are never about individual school psychologists, but about trends within the field.

Third, the NASP Membership Survey is not unique in that it shares certain limitations inherent to self-report with other surveys. Namely, the NASP Membership Survey requires school psychologists to reflect on their professional practices over the past year and to report that information. While some responses may be calculated or looked up in records (e.g., ratio, number of evaluations), other responses (e.g., social justice engagement) may not be recorded as part of standard

procedure. Next, there is a risk for social desirability bias and typographical error in responding, both of which may reduce the validity of the data.

Finally, the NASP Membership Survey is designed as a descriptive tool. That is, it is intended to answer specific questions related to the roles and responsibilities of school psychologists, and other related questions of importance are not accessible via this sample. However, as NASP places greater value on questions such as engagement in the NASP Practice Model, the impact of student-to-school psychologist ratio, and the role of social justice in the professional life of school psychologists, additional modifications to the survey may be warranted. For instance, given the importance of understanding the impact of ratio on school psychologists' professional practice, future NASP surveys could be modified to target specific questions such as: (a) What is the impact of school psychologists' ratio on job satisfaction? and (b) For which activities do school psychologists wish they had more time? Other modifications might include asking school psychologists to report the percentage of their time spent in various activities. Such data would be more amenable to interpretation and comparison across time.

CONCLUSION

The NASP Membership Survey has an important role in understanding the current landscape of the profession. This report highlighted that although the NASP Standards (2020) encourage an expanded role as comprehensive behavioral and mental health providers, school psychologists' role continues to focus primarily on conducting psychoeducational assessments for special education eligibility. While increasing the number of school psychologists employed by school districts is necessary to increase the availability of school mental health services, it is likely not sufficient to ensure access to high-quality school mental health services. School psychologists' professional practices are further narrowed by the policy and guidelines of local and state education agencies and the extent to which training programs prepare practitioners to engage in mental and behavioral health services (Atkinson et al., 2014; Hanchon & Fernald, 2013; Suldo et al., 2010).

Nonetheless, the NASP membership survey provides important insight about the profession of school psychology. Additionally, it provides a glimpse into the contemporary practice of school psychology and demonstrates how the profession is adapting to continuous change. With the enormous and sudden changes of the past couple of years, it is imperative to be cognizant of how the profession is being influenced and to be purposeful with its steps moving forward.

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