



School Psychologists' Sense of Self-Efficacy for Consultation

Meaghan C. Guiney, Abigail Harris, Akane Zusho & Anthony Cancelli

To cite this article: Meaghan C. Guiney, Abigail Harris, Akane Zusho & Anthony Cancelli (2014) School Psychologists' Sense of Self-Efficacy for Consultation, Journal of Educational and Psychological Consultation, 24:1, 28-54, DOI: [10.1080/10474412.2014.870486](https://doi.org/10.1080/10474412.2014.870486)

To link to this article: <https://doi.org/10.1080/10474412.2014.870486>



Published online: 05 Mar 2014.



Submit your article to this journal [↗](#)



Article views: 424



View related articles [↗](#)



View Crossmark data [↗](#)



Citing articles: 8 View citing articles [↗](#)

School Psychologists' Sense of Self-Efficacy for Consultation

MEAGHAN C. GUINEY
Fairleigh Dickinson University

ABIGAIL HARRIS, AKANE ZUSHO, and ANTHONY CANCELLI
Fordham University

The Consultation Self-Efficacy Scale (CSES) was developed and validated to assess school psychologists' perceptions of self-efficacy for engaging in school-based consultation. A pilot study with graduate students ($N = 92$) indicated high internal consistency ($\alpha = .99$) and provided evidence of discriminant validity, as a group with more consultation experience had significantly higher total self-efficacy scores ($M = 512.25$) than a moderately experienced group ($M = 437.35$). Subsequently, a sample of 347 practicing school psychologists completed a revised CSES, consistently endorsing moderate to high levels of consultation self-efficacy ($M = 404.08$, $SD = 51.73$). Although consultation self-efficacy was hypothesized to be a multidimensional construct, exploratory factor analysis indicated a single-factor structure. Construct validity of the instrument was supported by significant correlations between school psychologists' consultation self-efficacy ratings and perceptions of their ability to respond to hypothetical consultation referral problems ($r = .69$, $p < .01$), and regression analysis found that years of experience and time spent consulting with teachers predicted psychologists' self-efficacy scores.

Consultation has become an increasingly important professional function for school psychologists in recent years. The ability to assist multiple children by working with a single adult makes consultation a more efficient approach to school psychology than direct service delivery. Reviews of research have also found consultation to be an effective means of improving outcomes

Received 24 November 2013; accepted 24 November 2013.

Correspondence should be sent to Meaghan C. Guiney, Fairleigh Dickinson University, School of Psychology, 1000 River Road, T-WH1-01, Teaneck, NJ 07666. E-mail: mguiney@fd.edu

for students (e.g., Sheridan, Welch, & Orme, 1996). Consultation has been linked to reductions in special education classifications (Gravois & Rosenfield, 2002), including decreases in special education placements for minority students (Gravois & Rosenfield, 2006). Recognizing these realities, the National Association of School Psychologists (NASP) delineated Consultation and Collaboration as a core domain of training and practice in its *Standards for Graduate Preparation of School Psychologists* (NASP, 2010c). Despite this emphasis in training and the recognized importance of consultation skills, consultation persistently comprises only a small part of the average school psychologist's role, if any (Curtis, Castillo, & Gelley, 2012b). The present research aimed to develop a means of investigating whether a lack of perceived self-efficacy impacts school psychologists' consultation practices.

UNDERUTILIZATION OF CONSULTATION

Surveys over the past two decades have consistently found that school psychologists devote much more time to assessment than consultation (e.g., Curtis et al., 2012b; Hosp & Reschly, 2002). Structural problems with the role of the school psychologist may account for this to some extent. Meyers, Roach, and Meyers (2009) suggest that an overemphasis on assessment for special education identification, time constraints, and a lack of interest from administrators and teachers all serve as barriers to a consultation approach to preventive services. For years large caseloads have been cited as an obstacle for potential consultants to overcome (see Stewart & Medway, 1978). Higher student-to-school-psychologist ratios have also been associated with greater time spent on initial evaluations and reevaluations (Curtis, March, Castillo, Stockslager, & Gelley, 2012). School psychologists report that they lack the necessary time to pursue consultation and that required assessments are a barrier to engaging in more indirect service delivery (Wilczynski, Mandal, & Fusilier, 2000).

SELF-EFFICACY

Another factor that may contribute to the underutilization of consultation is a lack of self-efficacy for consultation on the part of some school psychologists. The construct of self-efficacy, defined as the degree to which individuals believe they possess the ability to perform the behaviors that are expected to lead to a desired outcome, can explain and predict human motivation, judgment, and behavior (Bandura, 1982, 1986). This includes the choices individuals make regarding whether to approach or avoid activities. School psychologists' tendency to devote more time to assessment than consultation could reflect greater feelings of self-efficacy for tasks related to assessment

than those required for consultation. Conversely, a lack of self-efficacy for consultation could lead school psychologists to avoid opportunities for indirect service delivery and remain in the familiar and comfortable role of evaluator. Without a valid and reliable measure of consultation self-efficacy (CSE) perceptions, it is not possible to evaluate such a hypothesis or the extent to which perceptions of CSE may be impacting consultants' behavior. Furthermore, with a multidimensional measure of CSE it would be possible to refine consultation training practices to target skills that are perceived as in need of improvement. Cramer and Rosenfield (2003) have suggested that graduate students may not receive sufficient training in consultation to feel competent as practitioners. A measure of CSE could help assess this assertion and guide training.

MEASURING OTHER TYPES OF SELF-EFFICACY

Although CSE has yet to be explored, for years the literature on teaching efficacy has highlighted how self-perceptions are linked to educators' behaviors such as choice of lesson format (Gibson & Dembo, 1984), decisions to refer students for special education evaluations (Meijer & Foster, 1988), and a tendency to consider teacher-based solutions to student problems (Soodak & Podell, 1994). DeForest and Hughes (1992) even linked teaching efficacy to teachers' perceptions of and responses to school-based consultation. Attempts to create valid and reliable measures of teaching efficacy (Bandura, n.d.; Tschannen-Moran & Hoy, 2001), school counseling efficacy (Bodenhorn & Skaggs, 2005), and general counseling efficacy (Larson et al., 1992; Lent, Hill, & Hoffman, 2003) demonstrate how careful item development, item analysis, and factor analysis can be used in the development of measures of specific types of self-efficacy.

DOMAINS OF CONSULTATION SELF-EFFICACY

Because consultation is a complex and multifaceted process, CSE may be a multidimensional construct. A measure of CSE must take into account self-perceptions of one's abilities across the various skills and domains that are theorized to comprise effective consultation. A review of the literature on consultation competencies and training standards from more than four decades highlights six areas that a measure of CSE must address.

Self-Awareness

Many authors emphasize the importance of self-related competencies, such as self-awareness or the ability to reflect on one's own skills and performance

(e.g., Zins & Erchul, 2004). For example, Arredondo, Shealy, Neale, and Winfrey (2004) included self-awareness, along with emotional intelligence, among a list of skill sets essential to consultation competency. Rosenfield and Gravois (1993) listed self-awareness and self-evaluation as required considerations for the education of novice consultants.

Interpersonal Skills

According to Arredondo et al. (2004), “The capacity to develop and maintain professional relationships is at the core of consultation” (p. 791). Interpersonal skills and the ability to build and maintain relationships are critical to successful consultation (Kratochwill, 2008) and an important area of emphasis for graduate training in consultation (Meyers, 2002).

Communication Skills

A third skill set frequently cited throughout the consultation competency and training literature is strong communication skills. As Rosenfield (2002) noted, “Consultation is essentially a communication process between consultant and consultee” (p. 100). The ability to communicate effectively permeates all aspects of consultation, from establishing an initial working relationship to proceeding through the stages of problem solving (Rosenfield, 2008).

Interventions

Because the central focus of consultation is to support a consultee in selecting, implementing, and monitoring an intervention to address the identified problem, no measure of CSE would be complete without assessing school psychologists’ perceptions of their knowledge of interventions and ability to assist consultees in implementing them effectively. Whether it is described as plan implementation (Kratochwill, 2008) or treatment implementation (Watson & Sterling-Turner, 2008), the intervention stage of consultation demands knowledge of evidence-based interventions to address a wide variety of referral problems as well as the data collection and analysis skills to evaluate their effectiveness. This knowledge is so essential that it comprises two distinct domains of the NASP Practice Model (NASP, 2010a).

Process

Knowledge of the process of systematic problem solving is a fifth area of necessary competence (Rosenfield, 2002; Rosenfield & Gravois, 1993). This includes understanding different models of consultation or means of consulting and collaborating (NASP, 2010c). Knoff and Hines (1995) identified skills related to management of the consultation process as a factor associated

with consultees' perceptions of effective consultation, whereas Kratochwill, Elliott, and Busse (1995) suggested that more training in the stages of the consultation process may lead to more effective outcomes for clients.

Cultural Competence

Finally, the ability to collaborate effectively with individuals from diverse cultural backgrounds is frequently emphasized (e.g., Arredondo et al., 2004). Because consultation is an interpersonal problem-solving process, one cannot consult effectively without a clear understanding of how the consultant's and consultee's worldviews impact their conceptualization of and approach to the issues being addressed. Such skills are not only fundamental to the many roles school psychologists play, they are also a component of the NASP *Principles for Professional Ethics* (NASP, 2010b).

The purpose of the present studies was to develop and validate a measure that could be used to explore the structure of CSE as a construct and to investigate the relationship between perceptions of CSE and school-based consultation practices. After a pilot study ($N = 92$) was completed for purposes of instrument development and item analysis, a larger scale validation study ($N = 347$) assessed the impact of experience on CSE beliefs, the relationship between perceptions of CSE and beliefs regarding one's ability to handle consultation concerns, and the relationship between CSE perceptions and the amount time practitioners tended to spend engaged in consultation.

STUDY 1: INSTRUMENT DEVELOPMENT AND ITEM ANALYSIS

Method

PARTICIPANTS

Participants in the pilot study were 92 graduate students studying school psychology. Eighty-eight percent of respondents were female and participants ranged in age from 21 to 76 years ($M = 27.09$, $SD = 7.28$). On average, students had completed between four and five semesters of graduate training ($M = 4.52$, $SD = 3.71$). In terms of consultation experience, students reported that they had completed between 0 and 50 consultation cases ($M = 4.58$, $SD = 7.63$). Nearly one third of students (30%) had completed a field-based practicum experience in consultation and 29% were in the process of completing such a practicum at the time of participation. Twenty-two percent were completing a school psychology internship. A majority of students (79%) reported taking a course in behavioral analysis, 74% were taking or had completed a course on theories of school-based consultation, and 73% had completed or were completing a course on instructional consultation.

Three different types of students were recruited. The first group (58%) had both theoretical knowledge of and hands-on experience with consultation, as all had completed a consultation practicum. The second group (22%) had completed coursework in consultation but had no field experience. Finally, 21% had neither theoretical nor practical knowledge of consultation. Differences in CSE scores among these groups were examined to assess the discriminant validity of the CSE scale.

MEASURES

All participants completed a demographic questionnaire and two measures developed specifically for the present study. A subgroup of respondents completed these measures a second time for purposes of assessing test-retest reliability.

Consultation Self-Efficacy Scale–Pilot (CSES-P). The six key areas of competence discussed earlier were identified as fundamental to consultation: (a) self-related competencies, (b) interpersonal skills, (c) communication skills, (d) intervention knowledge and skills, (e) knowledge of the process of consultation, and (f) cultural competence. An initial pool of items was drafted to comprehensively reflect these six domains.

To ensure that the initial pool of items was appropriate for measuring school psychologists' perceptions of CSE, consultation experts were recruited to review the CSES-P. Three individuals with extensive experience engaging in and/or conducting research on consultation reviewed the draft scale. One school-based practitioner who also served as an adjunct professor of behavior analysis was recruited for his knowledge of consultation skills used by school psychologists in the field. The second expert was an associate professor of school psychology who has published articles on consultation and the implementation of problem-solving teams. The third, the author of a widely taught and cited textbook on consultation, was selected based on decades of experience teaching, presenting, and publishing on consultation.

The consultation experts were asked to review the initial pool of 72 items with a number of questions in mind to assess content validity, relevancy, and inclusiveness of items. They were asked whether the scale captured the salient components of CSE and if they felt additional self-efficacy domains should be explored. Reviewers were encouraged to suggest additional items and they were asked to revise any items they found confusing or eliminate any items that seemed redundant. Further, they were asked to provide general feedback about the structure, wording, and format of the items.

Based on the experts' feedback several changes were made to the initial item pool, including the addition of three items addressing consultation around specific types of clients (e.g., students with attention problems). These changes resulted in a 74-item CSES-P that included a seventh sub-domain focused on client-related questions. Items used a 9-point Likert

scale and asked participants to rate their level of confidence for various consultation activities (1 = *not at all confident*, 9 = *extremely confident*).

Consultation self-efficacy vignettes. An additional measure was developed to investigate self-efficacy perceptions for the types of academic and behavioral concerns commonly raised in school-based consultation. This measure included 12 descriptions of situations that might lead a teacher to seek consultation with a school psychologist. Half of the vignettes focused on a behavioral concern whereas the rest involved students with academic difficulties. Four of the 12 vignettes detailed a systems-level problem (such as one faced by a school district or grade level), whereas the remaining 8 described issues for individual students. Vignettes were balanced for age of student described (elementary, middle, and high school) and gender of both teachers and students. A complete copy of the vignettes is presented in Appendix A.

PROCEDURE

Students completed the CSES-P, the self-efficacy vignettes, and a brief demographic questionnaire during a class session. They were informed that their decision to participate would have no impact on their grade and instructors had no knowledge of who chose to participate in the study.

Results

Summed Likert rating scores for the 74-item CSES-P ranged from 231 to 630 ($M = 490.40$, $SD = 80.98$). Scores were examined across the three groups of graduate students recruited for the pilot study: (a) the least experienced group, or those who had completed neither coursework nor field experiences in consultation ($M = 486.11$, $SD = 68.73$); (b) the moderately experienced group who had taken courses on consultation theory but had not yet completed a field experience ($M = 437.35$, $SD = 98.33$); and (c) the most experienced group, or students who had both theoretical and practical knowledge of consultation ($M = 512.25$, $SD = 67.54$).

Total scores were also calculated for the 12 self-efficacy vignettes ($M = 40.59$, $SD = 7.68$) along with subdomain scores for the 6 vignettes based on academic concerns ($M = 19.56$, $SD = 4.61$) and behavior problems ($M = 21.03$, $SD = 4.25$). Total vignette scores for the least experienced group were lowest ($M = 36.53$, $SD = 9.06$), whereas the mean total score for the moderately experienced group was 37.32 ($SD = 7.91$), and the most experienced group's mean score was 43.23 ($SD = 5.92$).

RELIABILITY

The CSES-P demonstrated high internal consistency reliability ($\alpha = .99$). Internal consistency for each of the theorized subdomains was also acceptable

($\alpha = .81$ to $.98$). For the 12 vignettes internal consistency was also high ($\alpha = .90$). Internal consistency statistics for the 6 academic vignettes and 6 behavior vignettes were identical ($\alpha = .88$).

Nineteen participants completed the CSES-P and vignettes twice. The test-retest interval ranged from 14 to 20 days ($M = 17.37$, $SD = 2.57$). The CSES-P total scale test-retest reliability of $r = .92$ was significant ($p < .01$). Test-retest reliabilities for all seven subdomains were also significant: interventions, $r = .94$ ($p < .01$); clients, $r = .89$ ($p < .01$); interpersonal competence, $r = .86$ ($p < .01$); problem-solving process, $r = .77$ ($p < .01$); communication skills, $r = .73$ ($p < .01$); cultural competence, $r = .67$ ($p < .01$); and self-awareness, $r = .63$ ($p < .01$).

For the vignettes, test-retest reliability was significant for the total score ($r = .89$, $p < .01$) as well as scores for the six vignettes focused on behavior concerns ($r = .74$, $p < .01$) and the six academic-based vignettes ($r = .72$, $p < .01$).

ITEM ANALYSIS

Item analyses were conducted to evaluate the functioning of individual scale items. Mean scores for individual items ranged from 5.08 to 8.17, suggesting that students consistently endorsed moderate to high levels of CSE. Items with particularly high or low means were those that participants tended to answer in a fairly consistent manner, making them less likely to discriminate among respondents. In an effort to retain items that would maximize variability in responses, such items were considered for elimination from the CSES-P.

The correlation of each individual item to the overall scale score was also examined. This statistic represents the extent to which participants' responses to a particular item tended to be consistent with their overall responses to the entire scale. Results ranged from $r = .43$ to $r = .83$, with an average corrected item total correlation of $r = .68$. Higher correlations indicated items that were less likely to discriminate among respondents, as responses to such items tended to be similar to participants' overall response patterns.

Seventeen items were removed from the CSES-P to create the Consultation Self-Efficacy Scale (CSES) that was administered during the second phase of this study. Five items with high mean scores (7.48 to 8.17) were eliminated as were 12 items with high corrected item total correlations (.72 to .81). Many of these items asked about specific aspects of intervention knowledge and appeared to be redundant. Only items assessing general knowledge of interventions for academic, behavioral, and mental health concerns were retained.

DISCRIMINANT VALIDITY

To assess discriminant validity, mean differences were examined for the three groups of students with different degrees of consultation experience.

A one-way analysis of variance (ANOVA) indicated significant differences in total CSES scores ($df = 2, F = 7.21, p < .01$). A post hoc Tukey honestly significant difference (HSD) test indicated that the most experienced group had significantly higher total CSES scores ($M = 512.25$) than the moderately experienced group ($M = 437.35$). An additional one-way ANOVA indicated differences in mean scores for the vignettes ($df = 2, F = 8.80, p < .01$). A Tukey HSD test found that all three groups differed significantly from one another, with those with the least experience having the lowest scores ($M = 36.53$), those with moderate experience demonstrating slightly higher self-efficacy ($M = 37.32$), and the most experienced graduate students displaying the highest level of self-efficacy ($M = 43.23$).

STUDY 2: FACTOR ANALYSIS AND VALIDITY EVIDENCE

Method

PARTICIPANTS

Practicing school psychologists were recruited for the validation study ($N = 347$). Table 1 provides summary demographic data. Initial recruitment of practicing school psychologists was conducted via postcard mailings to a randomly generated list of 1,000 NASP members, but after this approach

TABLE 1 Practitioner Sample Demographics

Variable	<i>N</i>	%	% National sample ^a
Gender			
Male	65	20	23
Female	260	80	77
Mean age (<i>SD</i>)	37.06 (10.34)		47.4
Mean years of experience (<i>SD</i>)	8.62 (8.27)		
Primary practice setting			
Elementary	242	70	
Middle school	158	46	
High school	130	38	
Preschool	101	29	
Total: School based		91	92
University	23	7	7
Clinic	6	2	1
Private practice	2	1	4
Highest degree			
Master's	45	14	25
Specialist	180	56	46
Doctoral	96	30	24

^aSource. Curtis, Castillo, and Gelley et al. (2012a).

resulted in only 48 completed protocols efforts were made to recruit school psychologists via e-mail and other web-based methods of communication.

Because the majority of respondents were recruited via the Internet, a rate of response could not be established. However, a review of several characteristics suggests that the sample is representative of school psychologists nationwide. Table 1 presents comparable national statistics from the most recent comprehensive survey of the field reported by Curtis, Castillo, and Gelley (2012a). Of the respondents who chose to indicate their gender, 260 were female (80%) and 65 were male (20%). Participants ranged in age from 24 to 64 years ($M = 37.06$ years, $SD = 10.34$). Practitioners reported having between 1 and 34 years of experience as school psychologists ($M = 8.62$, $SD = 8.27$), slightly less than the mean of 12 years' experience reported by Lewis, Truscott, and Volker (2008). Most (91%) indicated that they were engaged in school-based practice, whereas 7% were university-based trainers, 2% practiced primarily in a clinical setting, and less than 1% of practitioners were primarily employed in private practice. The majority of respondents (70%) indicated that they worked with elementary school children, whereas 46% worked with middle school students, 38% worked with high school students, and 29% worked with preschool-age children. Most practitioners (71%) divided their time among two or more school buildings or sites ($M = 3.87$, $SD = 7.62$). More than half of the sample (56%) had obtained a specialist-level degree, whereas 30% had a doctorate and 14% indicated that a master's degree was the highest level of education attained.

In terms of consultation training, 47% of school psychologists reported completing one course on consultation in graduate school, whereas 40% completed two or three courses and 5% completed four or five courses. Notably, 7% of practitioners had taken no courses in consultation. Most participants (73%) completed a practicum in consultation during graduate school and 93% reported engaging in school-based consultation as part of an internship.

MEASURES

Consultation Self-Efficacy Scale (CSES). The CSES included the 56 items retained from the CSES-P after the pilot study. Items assessed the six domains of CSE derived from the review of the literature and training standards as well as a seventh domain addressing specific types of clients, as suggested by expert reviewers.

Vignettes. The vignettes presented to practicing school psychologists were identical to those used in the pilot study.

Social Desirability Scale (SDS). The SDS (Crowne & Marlowe, 1960) is a popular measure of socially desirable responding. It has been used in more than 1,000 studies since its publication (Beretvas, Meyers, & Leite, 2002), including studies of self-efficacy measures (e.g., Bodenhorn & Skaggs, 2005;

Lent et al., 2003). The SDS was used to ensure that respondents were not misrepresenting their feelings of self-efficacy in an attempt to appear self-assured. The 33 items of the SDS address the extent to which participants tend to “fake good” when responding to psychological measures. Crowne and Marlowe (1960) reported an internal consistency reliability coefficient of .88 and test-retest reliability of .89 with a sample of 39 undergraduates. More recently, Ventimiglia and MacDonald (2012) found the SDS demonstrated satisfactory internal consistency reliability with a Cronbach’s alpha of .79 for a sample of 555 undergraduates.

PROCEDURES

Materials for the second phase of the study were presented online. Participant recruiting was initially conducted through postcard mailings to randomly selected NASP members. Due to a low response rate after two mailings, recruiting was expanded using e-mail; social networking sites related to school psychology; and the e-mail lists for the NASP Consultee-Centered Consultation Interest Group, the Council of Directors of School Psychology Programs, and Trainers of School Psychologists.

Results

A total score was calculated for the CSES ($M = 404.08$, $SD = 51.73$). Mean scores for individual items ranged from 5.88 to 8.07, indicating that, like participants in the pilot study, practicing school psychologists consistently endorsed moderate to high levels of CSE. Total scores were also calculated for the CSE vignettes ($M = 48.68$, $SD = 6.76$) along with subscores for vignettes based on academic concerns ($M = 23.95$, $SD = 6.76$) and behavior problems ($M = 24.79$, $SD = 3.44$). Additional descriptive statistics and reliability information for the measures administered in Study 2 are presented in Table 2.

Participants responded to several questions about their practice and attitudes regarding consultation. On average, practitioners reported spending 17% of their time engaged in consultation with faculty or staff ($SD = 11.82$)

TABLE 2 Descriptive Statistics and Reliabilities for Phase II Measures

Measure	<i>N</i>	Minimum	Maximum	<i>M</i>	<i>SD</i>	<i>A</i>
CSES (total)	318	134.00	504.00	404.08	51.73	.98
Vignettes (total)	326	29.00	60.00	48.68	6.76	.89
Academic vignettes	326	11.00	30.00	23.95	4.23	.87
Behavior vignettes	326	13.00	30.00	24.79	3.44	.85
SDS	324	2.00	29.00	16.95	5.79	.82

Note. The possible range of CSES total scores was 56 to 504. CSES = Consultation Self-Efficacy Scale; SDS = Social Desirability Scale.

and 7% on consultation with families ($SD = 5.22$). Assessment activities typically consumed 37% of practitioners' time ($SD = 21.04$). More than half of the sample (56%) reported that they feel they spend too little time on consultation and 73% endorsed wanting to spend more time engaged in consultation activities.

RELIABILITY

Cronbach's alpha was calculated for the 56-item CSES as well as its seven subdomains. Overall internal consistency reliability for the CSES was high ($\alpha = .98$). The seven subscales each demonstrated high internal consistency reliability, ranging from $\alpha = .85$ to $\alpha = .94$.

EXPLORATORY FACTOR ANALYSIS

Principal axis factoring (PAF) with oblimin rotation was used to analyze CSES responses. The rotation converged after 30 iterations, resulting in a total of nine factors for which eigenvalues were greater than 1.0. The eigenvalue for the first factor was 27.63 and accounted for 49.33% of variance. Components 2–9 had eigenvalues of 3.50, 2.15, 2.04, 1.51, 1.32, 1.26, 1.19, and 1.04 and accounted for 6.23%, 3.84%, 3.63%, 2.73%, 2.35%, 2.25%, 2.13%, and 1.86% of variance, respectively.

Table 3 shows the factor pattern matrix for the 56 items analyzed. Nine items demonstrated secondary loadings greater than .30, whereas 2 items failed to load more highly than .30 on any factor. These 11 items were eliminated and PAF was repeated to examine the structure of the remaining 45 items (presented in Appendix B). This rotation converged in 16 iterations and resulted in a total of seven factors for which eigenvalues were greater than 1.0. The first factor had an eigenvalue of 21.29 and accounted for 47.31% of the variance. Components 2–7 had eigenvalues of 2.90, 2.07, 1.76, 1.42, 1.16, and 1.12 and accounted for 6.45%, 4.60%, 3.92%, 3.16%, 2.58%, and 2.49% of the variance, respectively.

Although CSE was hypothesized to be a multidimensional construct, the scree test suggested a single-factor solution. Furthermore, correlations among the subscales were generally high, ranging from .50 to .78, and consistently significant at $p < .01$ (see Table 4). This suggests substantial overlap among the CSES subscales, indicating that they are measuring very similar, if not the same, constructs.

CORRELATIONS

A small but significant correlation was found between CSES scores and scores from the SDS ($r = .21$, $p < .01$). This suggests that participants did not demonstrate substantial self-presentation biases.

To explore the relationship between CSE and school psychologists' perceptions of their ability to address specific referral concerns, correlations

TABLE 3 Factor Loadings for the 56 Items of the Consultation Self-Efficacy Scale

Item	Subscale	Factor								
		1	2	3	4	5	6	7	8	9
1	Self	-.032	.001	-.211	.033	-.538	-.090	-.085	.019	.016
2	Self	.047	.132	-.094	-.063	-.659	-.118	-.088	.017	-.020
3	Self	.033	.096	-.089	-.081	-.750	-.052	.021	.012	-.070
4	Self	-.067	.019	.085	.091	-.794	.115	.079	.095	-.032
5	Self	.006	.018	.050	-.026	-.840	.079	.000	-.009	-.034
6	Interpersonal	.098	.753	.038	-.029	-.028	.019	-.029	.005	.024
7	Interpersonal	.178	.563	-.157	-.069	-.124	-.092	.044	.000	-.027
8	Interpersonal	-.145	.781	.033	.105	.049	.071	-.073	.065	.028
9	Interpersonal	-.245	.635	-.085	.027	-.028	.037	-.062	-.008	-.059
10	Interpersonal	.057	.598	-.095	-.067	-.180	.098	-.020	-.144	-.046
11	Communication	.092	.058	-.143	.048	-.017	-.057	-.578	-.033	-.129
12	Communication	.101	.001	-.046	-.139	-.127	.106	-.630	.117	-.060
13	Communication	.091	.112	-.037	-.069	-.024	.036	-.720	.051	-.094
14	Communication	-.062	.187	.006	.092	-.030	-.018	-.551	.086	-.138
15	Communication	-.202	.149	-.093	.169	-.005	-.037	-.626	.122	.001
16	Process	-.234	.186	-.141	.207	-.088	.026	-.435	.078	.005
17	Process	-.177	.181	-.092	.320	-.122	.050	-.278	-.079	-.087
18	Process	-.275	.100	-.001	.450	-.172	.010	-.266	-.139	-.085
19	Intervention	-.059	-.027	-.009	-.103	-.183	.127	-.175	.106	-.646
20	Intervention	-.046	-.006	-.011	-.017	-.174	.221	-.117	-.016	-.612
21	Intervention	-.050	.114	.009	.073	-.069	.390	-.108	-.042	-.428
22	Intervention	.021	.071	-.101	-.074	-.038	.730	-.049	.023	-.096
23	Intervention	-.097	.047	-.164	.003	-.024	.726	-.019	.002	-.095
24	Intervention	.083	.031	-.098	-.014	-.035	.699	-.084	.070	-.053
25	Intervention	.034	.062	.012	-.088	-.004	.539	-.040	.521	.138
26	Intervention	.073	.064	-.025	.042	-.154	.591	.030	.148	-.126
27	Intervention	-.025	.105	-.023	.233	-.052	.485	.031	.056	-.202
28	Intervention	.090	.099	-.052	.227	-.052	.460	.058	.077	-.129
29	Intervention	-.013	.036	.000	-.048	-.044	.027	-.055	.805	-.157
30	Intervention	.230	.043	-.111	.183	-.047	.075	.050	.360	-.362
31	Intervention	.143	.088	-.078	.420	.018	-.040	.052	.342	-.326
32	Intervention	.202	.017	-.247	.174	-.051	.078	.025	.314	-.096
33	Process	.088	-.102	-.049	.368	-.199	.214	-.288	-.023	-.057
34	Process	.322	-.007	-.083	.037	-.191	.295	-.337	.050	-.022
35	Process	.318	.065	-.161	.098	-.082	.294	-.354	-.043	-.027
36	Process	.370	.109	-.066	.045	-.068	.363	-.364	.051	.003
37	Process	.228	.166	-.050	.170	-.157	.162	-.270	.026	-.059
38	Process	.170	-.010	-.126	.218	-.310	.160	-.228	-.122	-.009
39	Process	.035	.028	-.119	.255	-.331	.262	-.160	-.092	.069
40	Process	.270	.230	-.150	.148	-.209	.121	-.117	-.103	-.059
41	Process	.001	-.050	-.045	.024	-.151	.055	-.266	.576	-.041
42	Process	.312	.074	-.061	.259	-.054	.118	-.131	.097	-.331
43	Process	.163	.141	.011	.450	-.056	-.021	-.130	.097	-.252
44	Process	.082	-.008	-.018	.358	-.101	.167	-.052	.265	-.128
45	Process	-.104	-.071	-.117	.332	-.171	.116	-.064	.430	.130
46	Process	-.009	.083	-.106	.692	.017	-.008	-.010	.026	-.088
47	Process	.049	-.002	-.014	.420	-.115	.114	-.093	.291	-.014
48	Client	.096	.156	-.165	.047	.000	-.030	-.090	.093	-.529
49	Client	-.010	.036	-.151	.170	-.020	.020	-.029	-.006	-.419
50	Client	-.198	.022	-.411	.119	.047	.090	-.018	.192	-.078
51	Cultural	-.023	.017	-.775	-.080	.016	.093	-.059	-.013	-.081
52	Cultural	-.052	-.025	-.790	-.073	.008	.117	-.024	-.018	-.148
53	Cultural	.043	.037	-.894	.005	-.043	-.039	-.028	-.014	.082
54	Cultural	.011	.022	-.938	.010	-.066	-.060	.008	-.013	.044
55	Cultural	.011	.015	-.914	.028	.001	.044	.033	-.033	.005
56	Cultural	.089	.112	-.675	.065	-.093	-.030	-.039	.078	.026

TABLE 4 Intersubscale Correlations for Subscales Derived by Exploratory Factor Analysis

Subscale	1	2	3	4	5	6
1. Process						
2. Cultural Competence	.59					
3. Intervention—Monitoring	.71	.58				
4. Interpersonal	.56	.58	.53			
5. Self	.69	.63	.66	.64		
6. Intervention—Planning	.78	.62	.77	.50	.65	
7. Communication Skills	.76	.65	.67	.68	.71	.70

Note. All correlations were significant at $p < .01$.

between CSES total scores and responses to the vignettes were analyzed. The Pearson product-moment correlation between CSES scores and overall vignette responses was significant ($r = .69$, $p < .01$). This relationship was strongest for behavioral concerns ($r = .69$), although the correlation between CSES scores and scores for vignettes relating to academic concerns remained within the moderate range ($r = .54$). Results were similar for participants in the pilot study, including a strong correlation between CSES-P scores and vignette responses ($r = .74$). These data provide evidence of concurrent validity for the CSES and the vignettes.

REGRESSION

A simultaneous multiple regression was conducted to examine the extent to which years of experience as a school psychologist, percentage of time spent engaged in consultation with faculty or staff, and percentage of time spent engaged in consultation with families contributed to CSE perceptions. The resulting model was significant, $F(3, 233) = 9.52$, $p < .01$. However, only a small amount of the variance in CSE was explained by these three variables ($r^2 = .11$). Years of experience as a school psychologist and the percentage of time spent engaged in consultation with faculty and staff contributed significantly to variability in CSE ($p < .01$ and $p < .05$, respectively). See Table 5 for regression coefficients.

TABLE 5 Variables Contributing to Perceptions of Consultation Self-Efficacy Scale

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	<i>B</i>	<i>SEB</i>	β	<i>p</i>
Years of experience	258	8.21	8.25	1.23	.38	.20	.00
Time consulting with faculty	258	17.00	11.44	.75	.27	.17	.01
Time consulting with families	258	6.88	4.93	1.20	.64	.12	.06

DISCUSSION

The purpose of this research was to develop and validate a measure of CSE that could be used to explore the structure of the construct and relationships between CSE and school psychologists' beliefs and behaviors. This initial exploration of the CSES demonstrated high internal consistency reliability and provided preliminary evidence of concurrent and discriminant validity.

Factor Structure

CSE was hypothesized to be a multidimensional construct comprised of specific subdomains of knowledge or skill that are repeatedly emphasized in the consultation literature and standards for training. However, the seven-factor model of CSE that guided development of the CSES appears to be overcomplex. For example, one could question the extent to which subdomains such as "interpersonal skills" and "communication skills" are distinct from one another. Although competency in both areas may be necessary for successful consultation, attempting to assess them separately could be challenging. Similarly, some authors discuss concepts such as self-awareness in the context cultural competence (e.g., Arredondo et al., 2004), intermingling two concepts presumed to be separate factors in the development of the CSES. Results from the present study support a unidimensional conceptualization of CSE, as exploratory factor analysis suggested a single-factor solution.

Underutilization of Consultation

Results from this research do not provide clear evidence to support the hypothesis that a lack of CSE explains the underutilization of consultation by school psychologists. Respondents endorsed moderate to high levels of CSE for all consultation domains, as evidenced by mean item scores ranging from 5.88 to 8.07 on a 9-point scale. A majority of respondents (73%) expressed a desire to spend more time involved in consultation, but like many other studies of the school psychologist's role, practitioners reported spending a substantial amount of their time (37%) involved in assessment activities. This suggests that despite feeling ready, willing, and able to consult effectively, practitioners continue to devote less time than they would like using their consultation skills.

Impact of Experience on Efficacy Beliefs

This research also explored the relationship between experience and CSE perceptions. The results from the pilot study provided discriminant validity evidence, as the most experienced group of graduate students indicated

significantly higher levels of CSE than the students who had no consultation experience. These findings support Bandura's (1977, 1986, 1997) assertion that cognitive factors, including performance attainments (opportunities to learn by doing), impact the development of self-efficacy perceptions. The most experienced group of trainees—those who had actually engaged in school-based consultation—indicated significantly higher levels of CSE on both the CSES-P and the vignettes than students who had not had opportunities for mastery experiences.

Data from the pilot study provide insight into the development of initial CSE perceptions. Results from the CSES-P suggest that CSE beliefs develop in a nonlinear trajectory. The findings reflect what Burkhouse (2012) refers to as *response shift bias*: before beginning consultation training students rate their skills as relatively solid, but as they begin to realize just how much there is to know about consultation, self-assessments become more critical and ratings are lower. Over time, with additional experience and training, these ratings recover and eventually exceed pretraining levels. For the present study, CSES-P group means were higher for the students with the least experience ($M = 486.11$) compared with the group of moderately experienced students who had knowledge of all there is to learn about consultation ($M = 437.35$). Although the mean differences between these groups were not significant, graduate students who had engaged in some consultation through practicum or internship experiences did demonstrate significantly higher CSE ($M = 512.25$) than the moderately experienced (prepracticum) group.

The pattern of results from the pilot study is similar to findings in the field of counseling self-efficacy. Bodenhorn and Skaggs (2005) found that practitioners with at least 1 year of experience scored higher on a measure of school counseling efficacy than did graduate students. On the Counseling Self-Estimate Inventory (Larson et al., 1992), bachelor's-level trainees had significantly lower self-efficacy scores than master's level counselors and counseling psychologists, and participants with 2 or more years of experience were significantly more likely than those with no experience to indicate stronger perceptions of self-efficacy. Thus, results from the CSES are consistent with Bandura's theory of self-efficacy as well as findings from the literature on consultation training and counseling self-efficacy.

The impact of experience on CSE perceptions was also assessed for the practitioner sample. Experience and time spent consulting with faculty or staff were significant predictors of CSE. These results align with Bandura's (1977) theory regarding the development of self-efficacy beliefs. School psychologists with more experience as practitioners, and certainly those who report engaging in more consultation with teachers, are likely to have had more opportunities for mastery experiences than their colleagues who are newer to the field. However, the limited amount of variance explained by these variables suggests that there is much more to the development of CSE beliefs than simply time and opportunities for practice.

Limitations

Despite some promising findings, there are multiple limitations to this study. The most significant derives from the fact that a relatively high level of motivation was required to participate in such research—enough to follow up on a postcard request or electronic message encouraging participants to visit the survey website. It is possible that individuals in the self-selecting sample for the study possessed a greater interest in consultation than other school psychologists. This could limit the generalization of the findings, particularly if individuals with little interest in or experience with consultation actively chose not to participate. It could also explain why mean item scores were consistently high; practitioners who enjoy consultation and choose to participate in research to advance the field may have more positive feelings about the topic than those who did not participate. They may also be school psychologists who seek out opportunities to engage in consultation and therefore have more experience and more reason to endorse higher perceptions of CSE.

This study also suffers from the same limitations as all self-perception research: the possibility that participants did not accurately assess their true capabilities. Although practitioners' responses suggest they generally feel quite capable of engaging in school-based consultation, more research is needed to assess the quality and effectiveness of practitioners' consultation practices in reality. As Brown, Pryzwansky, and Schulte (2006) state definitively, "We know relatively little about the characteristics of the effective consultant" (p. 177). More research on consultation effectiveness is always warranted.

Future Research

CONTINUED VALIDATION OF THE CSES

This initial exploration of the construct of CSE leaves much room for further validation of the CSES. Studies using more diverse samples, including school psychologists who do not regularly engage in consultation and do not aspire to consult regularly, are needed. Research comparing a graduate student sample with early career practitioners and more experienced school psychologists could provide more compelling discriminant validity evidence.

Given that CSE emerged as a unidimensional construct, it is possible that participants' ratings reflected a global trait, such as self-confidence, rather than self-efficacy perceptions. In fact, the directions for the CSES instruct participants to rate "the extent to which you feel confident" about each of the 45 consultation skills listed. It could be possible to investigate this possibility and establish further discriminant validity in future studies by administering both the CSES and measures of trait self-confidence or self-esteem.

The self-efficacy vignettes presented in this study could also benefit from further validation. It would be informative to ask future participants to rate the extent to which the scenarios presented are representative of the kinds of consultation referral problems they encounter in real-world practice. Additionally, school psychologists could rate how challenging they perceive each scenario to be as a means of assessing whether or not the vignettes present consistently difficult consultation problems. Finally, future studies using the vignettes should explore the extent to which school psychologists respond to the problems based on their ability to use the process of consultation to address them, rather than their knowledge of effective interventions to address the problem presented.

CSE AND CONSULTANT BEHAVIOR

Exploring links between CSE perceptions and consultant behaviors, such as persistence at difficult cases, would provide additional validity evidence consistent with Bandura's conceptualization of self-efficacy. Bandura's theory would predict that consultants with higher CSE scores would be more likely to persist in the face of a challenging consultation case, and those with lower CSE perceptions would be at greater risk for prematurely terminating a tough case. The extent to which CSE beliefs impact a school psychologist's tendency to approach or avoid consultation opportunities in general would also be informative. Such data might be gathered by surveying participants about their role and consultation practices in greater detail to explore potential barriers to consultation beyond a lack of CSE. For example, do school psychologists working in schools implementing a response-to-intervention (RTI) model endorse higher levels of CSE than their peers practicing outside an RTI framework? It would also be interesting to look more closely at the timing of practitioners' preservice training to assess for differences in consultation efficacy based on whether they were trained during (or even before) the years during which consultation was emerging as an area of emphasis in school psychology versus students who have entered the field more recently.

CSE AND CONSULTATION EFFECTIVENESS

In future studies the CSES could be used to expand the literature on effective consultation. This study assumed that more experience and more time spent engaged in consultation would predict higher CSE perceptions without taking into account the extent to which prior consultation practices had resulted in positive outcomes for clients or consultees. Does CSE predict consultation effectiveness? Does a history of successful consultation predict higher CSE perceptions? Research comparing practitioners' perceptions of their capabilities and consultees' ratings of consultant effectiveness and goal attainment could clarify the extent to which school psychologists can accurately assess

their consultation skills and whether CSE is related to positive consultation outcomes.

External ratings of consultation skill, conducted by consultation experts or other school psychologists, could also shed light onto the extent to which practitioners can accurately self-assess CSE and effectiveness. Linking CSE to real-world outcomes like teacher satisfaction or special education evaluation referral rates would also make for informative future research.

CONSULTATION TRAINING

The potential of the CSES as a consultation training tool is another area for future development. Graduate school trainers could collect pre- and postdata in consultation courses to assess the extent to which consultants-in-training are building skills and confidence. Findings could inform consultation training, allowing instructors and supervisors to tailor their support to meet the needs of their trainees. The CSES could also be used to investigate factors affecting the development of CSE, such as direct (practicum and internship) and vicarious (group supervision) experience. Not only could the CSES be used to assess trainees' perceptions of CSE but also novice, competent, and even expert consultants could use such a tool for self-assessment and professional development.

This study provides initial evidence supporting the validity of the CSES as a unidimensional measure of CSE. However, more studies are needed to gather additional validity evidence. Although a lack of CSE does not appear to explain the persistent underutilization of consultation by school psychologists, the CSES holds promise as a means of exploring the characteristics of effective consultants and informing training and professional development in consultation.

REFERENCES

- Arredondo, P., Shealy, C., Neale, M., & Winfrey, L. P. (2004). Consultation and interprofessional collaboration: Modeling for the future. *Journal of Clinical Psychology, 60*, 787–800.
- Bandura, A. (n.d.). *Teacher self-efficacy scale*. Retrieved from <http://www.coe.ohio-state.edu/ahoy/researchinstruments.htm#Ban>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*, 191–215.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*, 122–147.
- Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Freeman.

- Beretvas, S. N., Meyers, J. L., & Leite, W. L. (2002). A reliability generalization study of the Marlowe-Crowne Social Desirability Scale. *Educational and Psychological Measurement, 62*, 570–589.
- Bodenhorn, N., & Skaggs, G. (2005). Development of the School Counselor Self-Efficacy Scale. *Measurement and Evaluation in Counseling and Development, 38*, 14–28.
- Brown, D., Pryzwansky, W. B., & Schulte, A. C. (2006). *Psychological consultation and collaboration: Introduction to theory and practice* (6th ed.). Boston, MA: Allyn & Bacon.
- Burkhouse, K. S. (2012). Educating a reflective school consultant: Multi-faceted techniques. In S. Rosenfield (Ed.), *Becoming a school consultant: Lessons learned* (pp. 25–47). New York, NY: Routledge.
- Cramer, K., & Rosenfield, S. (2003). Clinical supervision of consultation. *The Clinical Supervisor, 22*, 111–124.
- Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology, 24*, 349–354.
- Curtis, M. J., Castillo, J. M., & Gelley, C. (2012a). School psychology 2010: Demographics, employment, and the context for professional practices. Part 1. *Communiqué, 40*(7), 1, 28–30.
- Curtis, M. J., Castillo, J. M., & Gelley, C. (2012b). School psychology 2010: Part 2. School psychologists' professional practices and implications for the field. *Communiqué, 40*(8), 4–6.
- Curtis, M. J., March, A., Castillo, J., Stockslager, K., & Gelley, C. D. (2012, February). *School psychology 2010: Relationships between select demographic or professional context variables and professional practices*. Paper presented at the annual convention of the National Association of School Psychologists, Seattle, WA.
- DeForest, P. A., & Hughes, J. N. (1992). Effect of teacher involvement and teacher self-efficacy on ratings of consultant effectiveness and intervention acceptability. *Journal of Educational and Psychological Consultation, 3*, 301–316.
- Gibson, S., & Dembo, M. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology, 76*, 569–582.
- Gravois, T. A., & Rosenfield, S. A. (2002). A multi-dimensional framework for evaluation of instructional consultation teams. *Journal of Applied School Psychology, 19*, 5–29.
- Gravois, T. A., & Rosenfield, S. A. (2006). Impact of instructional consultation teams on the disproportionate referral and placement of minority students in special education. *Remedial and Special Education, 27*, 42–52.
- Hosp, J. L., & Reschly, D. J. (2002). Regional differences in school psychology practice. *School Psychology Review, 31*, 11–29.
- Knoff, H. M., & Hines, C. V. (1995). Finalizing the Consultant Effectiveness Scale: An analysis and validation of the characteristics of effective consultants. *School Psychology Review, 24*, 480–497.
- Kratochwill, T. R. (2008). Best practices in school-based problem-solving consultation: Applications in prevention and intervention systems. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology V* (pp. 1673–1688). Bethesda, MD: National Association of School Psychologists.

- Kratochwill, T. R., Elliott, S. N., & Busse, R. T. (1995). Behavior consultation: A five-year evaluation of consultant and client outcomes. *School Psychology Quarterly, 10*, 87–117.
- Larson, L. M., Suzuki, L. A., Gillespie, K. N., Potenza, M. T., Bechtel, M. A., & Toulouse, A. L. (1992). Development and validation of the Counseling Self-Estimate Inventory. *Journal of Counseling Psychology, 39*, 105–120.
- Lent, R. W., Hill, C. E., & Hoffman, M. A. (2003). Development and validation of the Counselor Activity Self-Efficacy Scales. *Journal of Counseling Psychology, 50*, 97–108.
- Lewis, M. F., Truscott, S. D., & Volker, M. A. (2008). Demographics and professional practices of school psychologists: A comparison of NASP members and non-NASP school psychologists by telephone survey. *Psychology in the Schools, 45*, 467–482.
- Meijer, C. J., & Foster, S. F. (1988). The effect of teacher self-efficacy on referral chance. *Journal of Special Education, 22*, 378–385.
- Meyers, J. (2002). A 30 year perspective on best practices for consultation training. *Journal of Educational and Psychological Consultation, 13*, 35–54.
- Meyers, J., Roach, A. T., & Meyers, B. (2009). Engaging in the debate: A critique of *Blueprint III*. *Journal of Educational and Psychological Consultation, 19*, 197–223.
- National Association of School Psychologists. (2010a). *Model for comprehensive and integrated school psychological services*. Bethesda, MD: Author.
- National Association of School Psychologists. (2010b). *Principles for professional ethics*. Bethesda, MD: Author.
- National Association of School Psychologists. (2010c). *Standards for graduate preparation of school psychologists*. Bethesda, MD: Author.
- Rosenfield, S. (2002). Best practices in instructional consultation. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology IV* (pp. 609–623). Washington, DC: National Association of School Psychologists.
- Rosenfield, S. (2008). Best practice in instructional consultation and instructional consultation teams. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology V* (pp. 1645–1660). Bethesda, MD: National Association of School Psychologists.
- Rosenfield, S., & Gravois, T. A. (1993). Educating consultants for applied clinical and educational settings. In J. E. Zins, T. R. Kratochwill, & S. N. Elliott (Eds.), *Handbook of consultation services for children: Applications in educational and clinical settings* (pp. 373–393). San Francisco, CA: Jossey-Bass.
- Sheridan, S. M., Welch, M., & Orme, S. F. (1996). Is consultation effective? *Remedial and Special Education, 17*, 341–354.
- Soodak, L. C., & Podell, D. M. (1994). Teachers' thinking about difficult-to-teach students. *Journal of Educational Research, 88*, 44–51.
- Stewart, K. J., & Medway, F. (1978). School psychologists as consultants: Issues in training, practice and accountability. *Professional Psychology, 9*, 711–718.
- Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education, 17*, 783–805.
- Ventimiglia, M., & MacDonald, D. A. (2012). An examination of the factorial dimensionality of the Marlowe-Crowne Social Desirability Scale. *Personality and Individual Differences, 52*, 487–491.

- Watson, T. S., & Sterling-Turner, H. (2008). Best practices in direct behavioral consultation. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology V* (pp. 1661–1672). Bethesda, MD: National Association of School Psychologists.
- Wilczynski, S. M., Mandal, R. L., & Fusilier, I. (2000). Bridges and barriers in behavioral consultation. *Psychology in the Schools*, *37*, 495–504.
- Zins, J. E., & Erchul, W. P. (2004). Best practices in school consultation. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology IV* (pp. 625–643). Bethesda, MD: National Association of School Psychologists.

APPENDIX A CONSULTATION VIGNETTES

Please rate how you would feel if you were asked to consult with a teacher regarding the concerns described below. A rating of 1 indicates that you feel you lack almost all of the skills or abilities needed to successfully consult with the teacher regarding the concern, while a rating of 5 indicates that you feel you possess virtually all of the skills and abilities needed to consult successfully.

1. Mrs. Morrison is concerned about one of her 1st graders, Wesley. He is having a great deal of difficulty with reading. While most of his classmates are developing basic decoding skills and demonstrate knowledge of many sight words, Wesley can read only a handful of words. His spelling lags far behind his peers as well and he is not able to write much more than his first name. In math his numerical operations skills are on grade level.

1	2	3	4	5
Lack almost all skills needed				Possess almost all skills needed

2. Mr. Kaplan has concerns about a boy in his 4th grade class who is behaving very rudely in class. He talks back to him in front of other students, refuses assistance from Mr. Kaplan or the classroom teaching assistant when it is offered, uses inappropriate language, and calls out without raising his hand. He has noticed that these behaviors have emerged recently, while his behavior was more appropriate during the first few months of school.

1	2	3	4	5
Lack almost all skills needed				Possess almost all skills needed

3. Several teachers in your district have begun to notice a decline in student reading comprehension abilities. While students in your district generally demonstrate adequate to strong decoding abilities, teachers from 3rd grade through high school have reported that they seem to have difficulty summarizing and understanding the material that they read. The superintendent has asked the district psychologists to examine this problem and develop a plan to address reading comprehension instruction in the district.

1	2	3	4	5
Lack almost all skills needed				Possess almost all skills needed

4. You are asked to consult with Ms. Buckley about Fiona, a 3rd grader who appears behind her classmates in reading abilities. Ms. Buckley is particularly concerned about Fiona's sight word recognition skills. Her oral reading fluency scores also fall well below the 25th percentile compared to other children in the 3rd grade at your school.

1	2	3	4	5
Lack almost all skills needed				Possess almost all skills needed

5. Ms. Mahon comes to you about Eliza, a student in her 9th grade special education class. Eliza's attendance has become sporadic lately and when she is in class she uses curse words and refuses to complete most of the assignments that Ms. Mahon gives. She used to be an engaged and motivated student who treated teachers and classmates with respect, but Ms. Mahon is concerned about these dramatic changes in her behavior.

1	2	3	4	5
Lack almost all skills needed				Possess almost all skills needed

6. The principal of your district's high school is growing increasingly frustrated with student attendance. Teachers are complaining more and more about students arriving late or cutting class and not coming at all. The principal asks you for ideas about how to address this school-wide problem.

1	2	3	4	5
Lack almost all skills needed				Possess almost all skills needed

7. Mr. Hanson asks to speak with you about Ryan, one of his 5th grade students. Though he appears to be a bright boy who has great ideas and many contributions to class discussions, when he needs to put his ideas into writing he has great difficulty. He often won't produce work, and

when he does the organization is far behind that of other 5th graders, his spelling seems delayed, and his handwriting is almost impossible to read. Mr. Hanson would like some ideas about how he can help Ryan improve his writing.

1	2	3	4	5
Lack almost all skills needed				Possess almost all skills needed

8. Mrs. Champion, the teacher of a self-contained life skills class in your building, approaches you with concerns about a 16-year-old boy in her classroom with a diagnosis of mental retardation. She is worried about the fact that he has been seen smoking outside of school. Furthermore, he is often late to class in the morning by anywhere from 5 to 30 minutes. She would also like to see him build more organizational skills, as he tends to lose things like his homework and basic school supplies.

1	2	3	4	5
Lack almost all skills needed				Possess almost all skills needed

9. Your district, like many in the area, is beginning to implement a response-to-intervention (RTI) approach to identifying learning problems. Several teachers have asked questions about what RTI is and how it will change things in your building. At times you've overheard comments like, "This is going to mean more work for us in the classroom." Your principal approaches you about ways to introduce RTI to the faculty and begin using it in the building.

1	2	3	4	5
Lack almost all skills needed				Possess almost all skills needed

10. Kristen, a 7th grade student at your school, reads on grade level and produces creative and well-organized writing. However, her math teacher, Mr. Wenz, reports that she has substantial difficulties. Both her basic numerical operations skills and her problem-solving abilities seem weak compared to other students in her class. On a recent state math test she scored below the passing cutoff score. Mr. Wenz is looking for ways to support Kristen in math.

1	2	3	4	5
Lack almost all skills needed				Possess almost all skills needed

Note. Permission to use the Consultation Self-Efficacy (CSE) Vignettes is granted by the authors, provided it is referenced appropriately.

APPENDIX B
CSES

Consultation Attitudes

Please read each of the following statements carefully and indicate the extent to which you feel confident about what is described. Rate each statement on a scale from 1 (*Not At All Confident*) to 9 (*Extremely Confident*).

How confident are you that you ...	1 = <i>Not at all</i> 9 = <i>Extremely</i>								
1 Can remain aware of the potential impact of your personal experiences while consulting	1	2	3	4	5	6	7	8	9
2 Can reflect on your performance after a consultation session has finished	1	2	3	4	5	6	7	8	9
3 Can identify areas for improvement in future consultation sessions after a session has concluded	1	2	3	4	5	6	7	8	9
4 Can critically evaluate the success of a consultation case after it has been terminated	1	2	3	4	5	6	7	8	9
5 Can identify areas for improvement in future consultation cases after a case has been terminated	1	2	3	4	5	6	7	8	9
6 Can establish a strong working relationship with most consultees	1	2	3	4	5	6	7	8	9
7 Can demonstrate nonverbal behaviors that indicate you are attending to your consultee	1	2	3	4	5	6	7	8	9
8 Can establish a working relationship with a consultee who demonstrates resistance to consultation	1	2	3	4	5	6	7	8	9
9 Can establish a working relationship with a consultee who is consulting with you only because it is a prereferral requirement	1	2	3	4	5	6	7	8	9
10 Can establish a collaborative relationship that respects your consultee's expertise and knowledge	1	2	3	4	5	6	7	8	9
11 Can ask open-ended questions to encourage a consultee to further explore his or her concerns	1	2	3	4	5	6	7	8	9
12 Can frame a consultee's concerns in terms of observable, measurable behaviors	1	2	3	4	5	6	7	8	9
13 Can elicit responses from a consultee that will lead to problem identification	1	2	3	4	5	6	7	8	9
14 Can redirect the focus back to the student when the discussion strays to other topics (such as non-work-related problems)	1	2	3	4	5	6	7	8	9
15 Can successfully use reframing (helping your consultee see the problem from a different perspective)	1	2	3	4	5	6	7	8	9
16 Can restore a consultee's objectivity when necessary or appropriate	1	2	3	4	5	6	7	8	9
17 Can address a lack of confidence when detected in your consultee	1	2	3	4	5	6	7	8	9

(continued)

How confident are you that you ...		1 = <i>Not at all</i> 9 = <i>Extremely</i>								
18	Can recognize and deal with theme interference or transference from your consultee	1	2	3	4	5	6	7	8	9
19	Can collaborate with a consultee to list potential interventions to address the identified problem	1	2	3	4	5	6	7	8	9
20	Can assist the consultee to select an intervention that will be effective in addressing the client's problem(s)	1	2	3	4	5	6	7	8	9
21	Can plan for the collection of data to monitor the effectiveness of an intervention that is implemented	1	2	3	4	5	6	7	8	9
22	Can help consultees develop data-collection skills so that they will have the ability to make data-driven decisions in the future	1	2	3	4	5	6	7	8	9
23	Can plan for the collection of behavioral data to monitor an intervention	1	2	3	4	5	6	7	8	9
24	Can evaluate the effectiveness of an intervention that is implemented	1	2	3	4	5	6	7	8	9
25	Can work with a consultee to plan ways of generalizing the effects of an intervention beyond the setting in which it is used	1	2	3	4	5	6	7	8	9
26	Can develop means of fading an intervention once it has been successful	1	2	3	4	5	6	7	8	9
27	Have knowledge of evidence-based interventions to address academic difficulties	1	2	3	4	5	6	7	8	9
28	Can find information regarding evidence-based interventions for addressing new or unfamiliar referral problems	1	2	3	4	5	6	7	8	9
29	Can guide the consultation process through stages from contracting through termination	1	2	3	4	5	6	7	8	9
30	Can explain the process of consultation to a new consultee	1	2	3	4	5	6	7	8	9
31	Can evaluate the consultation experience with a consultee upon termination of a case	1	2	3	4	5	6	7	8	9
32	Can utilize the process of consultation to address academic difficulties	1	2	3	4	5	6	7	8	9
33	Can utilize the process of consultation to address social-emotional difficulties	1	2	3	4	5	6	7	8	9
34	Can implement a behavioral consultation (BC) or problem-solving consultation model when necessary or appropriate	1	2	3	4	5	6	7	8	9
35	Can implement a mental health consultation model when necessary or appropriate	1	2	3	4	5	6	7	8	9
36	Can implement a systems-level or organizational consultation model when necessary or appropriate	1	2	3	4	5	6	7	8	9
37	Can consult with a teacher around a client (student) with ADHD	1	2	3	4	5	6	7	8	9
38	Can consult with a teacher around a client (student) with a pervasive developmental disorder (PDD)	1	2	3	4	5	6	7	8	9
39	Can consult with a teacher around a client (student) who is an English language learner (ELL)	1	2	3	4	5	6	7	8	9

(continued)

How confident are you that you ...		1 = <i>Not at all</i> 9 = <i>Extremely</i>								
40	Can consult effectively with someone of a cultural background that is different from yours	1	2	3	4	5	6	7	8	9
41	Can consult effectively with a teacher when the client (student) is from a different cultural background than your own	1	2	3	4	5	6	7	8	9
42	Can recognize your inherent biases or assumptions about clients and/or consultees based on cultural background	1	2	3	4	5	6	7	8	9
43	Can remain aware of how your cultural background may affect the assumptions you make about consultees, clients or consultation cases	1	2	3	4	5	6	7	8	9
44	Can recognize how your consultee's cultural background may affect the way in which he or she approaches a consultation experience	1	2	3	4	5	6	7	8	9
45	Can recognize when your personal beliefs are affecting your approach to a consultee or case									

Note. Permission to use the Consultation Self-Efficacy Scale is granted by the authors, provided it is referenced appropriately.

Meaghan C. Guiney, PhD, is a clinical assistant professor with the School of Psychology at Fairleigh Dickinson University. Her research focuses on the development of school-based consultants. She teaches courses on ethics and professional issues in school psychology, behavior assessment and intervention, and administration and supervision of school psychologists.

Abigail Harris, PhD, is an associate professor and director of the School Psychology Program in the Division of Psychological and Educational Services at Fordham University Graduate School of Education. She teaches courses and conducts research on school-based consultation. She is also engaged in projects aimed at assessing and improving educational systems in Third World countries in Latin America and Africa.

Akane Zusho, PhD, is an associate professor of Educational Psychology at Fordham University Graduate School of Education. Her research focuses on examining the intersection of culture, achievement motivation, and self-regulation. The overarching goal of her research is to develop informed, less prescriptive, culturally sensitive theories of motivation and self-regulated learning that take into consideration the academic and motivational processes of urban youth from culturally diverse backgrounds.

Anthony Cancelli, EdD, is a full professor of school psychology in the Division of Psychological and Educational Services in the Graduate School of Education at Fordham University. He teaches on a variety of topics including role and function of the school psychologist, applied behavior analysis, nonbiased assessment, and evaluation.

Note: The authors report that to the best of their knowledge neither they nor their affiliated institutions have financial or personal relationships or affiliations that could influence or bias the opinions, decisions, or work presented in this article.