A Confirmatory Factor Analysis of the School Counseling Program Implementation Survey

Jacob Olsen

California State University Long Beach

Sejal Parikh-Foxx

University of North Carolina at Charlotte

Claudia Flowers

University of North Carolina at Charlotte

Abstract

Researchers analyzed data from a national sample of American School Counselor Association (ASCA) members practicing in elementary, middle, secondary, or K-12 school settings ($N = 4,598$) to test the underlying structure of the School Counseling Program Implementation Survey (SCPIS). Using both confirmatory and bifactor analyses, results suggested that a three-factor model had the best fit for the data. The SCPIS provides practicing school counselors, state and district leaders, counselor educators, and researchers with a psychometrically sound measure of ASCA National Model implementation.

Keywords: ASCA National Model, program implementation, factor analysis, survey, school counseling

A Confirmatory Factor Analysis of the School Counseling Program

Implementation Survey

In the early years of the profession, school counseling services were provided by an individual in a position rather than delivered through a comprehensive program (Dollarhide & Saginak, 2017; Gysbers, 1997). These services primarily focused on post high school career planning for individual students. However, starting in the 1960's, school counseling services began to be viewed as part of a developmental and comprehensive program known as pupil personnel services, which included psychological supports, social work, and attendance (Gysbers, 2001). This shift continued as states began developing school counseling program models, the National Standards for School Counseling Programs were established (Campbell & Dahir, 1997), and the American School Counselor Association (ASCA) developed the first National Model for comprehensive school counseling programs (CSCPs; ASCA, 2003).

As delivery of school counseling services began to shift toward a programmatic approach, measuring implementation was initially carried out at the local program level (Lapan et al., 1997; Lapan et al., 2001; Sink & Stroh, 2003). As such, instruments used to measure implementation were program specific, not readily available for practicing school counselors across districts and states, and not validated through research. This lack of accessible and validated instruments to measure school counseling program implementation made it more challenging for school counselors and researchers to assess implementation (Clemens et al., 2010; Gysbers, 2004; Sink et al., 2008; Whiston & Aricak, 2008).

After the first (ASCA, 2003) and second (ASCA, 2005) editions of the ASCA National Model were published, the Model became more wide-spread and considered best practice in terms of delivering CSCPs (ASCA, 2019b; Carey & Dimmitt, 2012; Dimmitt & Wilkerson, 2012; Jones et al., 2019; Wilkerson et al., 2013). This is largely due to an emphasis on developing programmatic systems, supporting students academic, social/emotional, and career development, and delivering programs through the Models four core components: Define, Manage, Deliver, and Assess (ASCA, 2019b; Rodriguez et al., 2018; Walsh et al., 2007). The Define component focuses on foundational professional standards (e.g., ASCA School Counselor Professional Standards and Competencies) that guide school counseling program implementation (ASCA, 2019b). The Manage component includes organizational strategies (e.g., developing a vision and mission) and tools (e.g., action plans) to help school counselors establish a foundation for their program and deliver services for students (ASCA, 2019b). The Deliver component focuses on activities and services that school counselors provide for students, including Direct Services (e.g., counseling) and Indirect Services (e.g., collaboration; ASCA, 2019b). Finally, the Assess component focuses on collecting, analyzing, and reporting data to determine the effectiveness of the program and identify areas in need of improvement (ASCA, 2019b).

There is a growing body of research that supports implementation of a CSCP aligned with the ASCA National Model (Lapan et al., 2019; Salina et al., 2013; Wilkerson et al., 2013). Researchers indicate that implementing a CSCP aligned with the ASCA National Model can contribute to important student outcomes including academic improvement (Carey, Harrington, Martin, & Stevenson, 2012; Wilkerson et al.,

2013), and reduced problem behaviors (Carey, Harrington, Martin, & Hoffman, 2012). Implementing CSCPs aligned with the ASCA National Model has also been shown to reduce equity and achievement gaps (Davis et al., 2013; Leon et al., 2011), and increase graduation rates (Salina et al., 2013). Because of the impact on students, school counselors also prefer to implement a CSCP aligned with the ASCA National Model (Cervoni & DeLucia-Waak, 2011; Kolodinsky et al., 2009; Lapan, 2012; Pyne, 2011; Scarborough & Culbreth, 2008).

As a result of the ASCA National Model becoming more wide-spread and an indication that students benefit when CSCP aligned with the Model are implemented, there continues to be a need to measure ASCA National Model implementation. Measuring program implementation allows practicing school counselors to assess the extent to which they are aligning their program with national standards (Astramovich, 2016; Sink, 2009; Studer et al., 2011). In addition, measuring implementation allows school counselors to identify program strengths and areas in need of improvement related to program delivery (Dimmitt, 2009; Kaffenberger & Young, 2013). In terms of school counseling researchers, measuring ASCA National Model implementation using an accessible and validated measure allows researchers to compare programs across a variety of contexts; and evaluate how the Model impacts students by examining the relationship between Model implementation and important student outcomes (e.g., academic achievement, discipline, attendance; Clemens et al., 2010).

Despite an ongoing need to measure ASCA National Model implementation for school counselors and researchers, there remains to be few validated instruments available. Further, authors of the most commonly used instruments and school

counseling researchers call for further evaluation of existing instruments in a variety of contexts to further validate the instruments (Clemens et al., 2010; Scarborough, 2005). This study meets this call, in part, by using a large national sample of practicing school counselors to validate the School Counseling Program Implementation Survey (SCPIS; Clemens et al., 2010). To date, the SCPIS is the most commonly used instrument to measure ASCA National Model implementation (Carey & Dimmitt, 2012; Carey, Harrington, Martin, & Hoffman, 2012; Carey, Harrington, Martin, & Stevenson, 2012; Clemens et al., 2009; Mason, 2010).

Measuring ASCA National Model Implementation

In extant literature, the measurement of ASCA National Model implementation is typically focused on (1) how school counselors spend their time on ASCA National Model aligned activities, or (2) the extent to which ASCA National Model components are in place. To capture ASCA National Model implementation in these areas, two surveys are typically used in research. The first survey typically used is The School Counselor Activity Rating Scale (SCARS; Scarborough, 2005). The SCARS is a validated survey used to measure how school counselors actually spend their time and how they prefer to spend their time on ASCA National Model aligned activities (Nelson et al., 2008; Neyland-Brown et al., 2019; Ruiz et al., 2018).

A factor analysis of the SCARS was used to identify seven factors describing how school counselors spend their time: Curriculum, Coordination, Counseling, Consultation, Clerical, Fair Share, and Administrative. Items comprising each factor use a 5-point Likert scale ranging from 1 (I never do this) to 5 (I routinely do this) for actual time spent; and 1 (I would prefer to never do this) to 5 (I would prefer to routinely do

this) for how school counselors prefer to spend their time. The Curriculum factor includes eight items and has reliability coefficients of .93 for actual time spent and .90 for how school counselors prefer to spend their time. The Coordination factor includes 13 items and has reliability coefficients of .85 for actual time spent and .84 for how school counselors prefer to spend their time. The Counseling factor includes nine items and has reliability coefficients of .85 for actual time spent and .83 for how school counselors prefer to spend their time. The Consultation factor includes seven items and has reliability coefficients of .75 for actual time spent and .77 for how school counselors prefer to spend their time. The final three factors measure non-school counseling duties, and include Clerical, Fair Share, and Administrative. The Clerical factor includes three items and has reliability coefficients of .84 for actual time spent and .80 for how school counselors prefer to spend their time. The Fair Share factor includes five items and has reliability coefficients of .53 for actual time spent and .58 for how school counselors prefer to spend their time. Finally, the Administrative factor includes two items and has reliability coefficients of .43 for actual time spent and .52 for how school counselors prefer to spend their time.

The second survey typically used is the School Counseling Program Implementation Survey (SCPIS; Clemens et al., 2010). The SCPIS measures the extent to which ASCA National Model components are in place. Factor analysis of the SCPIS was used to identify both a two-factor model and a three-factor model depending on the objectives of the survey user (Clemens et al., 2010). In the two-factor model, implementation is measured more broadly with 14 items comprising a factor labeled ASCA National Model Implementation, and three items comprising a factor labeled

School Counselors Use of Computer Software. The ASCA National Model

Implementation factor has a reliability coefficient of .87 and the School Counselors Use

Computer Software factor has a reliability coefficient of .83. In the three-factor model,

implementation is measured more precisely by breaking up the ASCA National Model

Implementation factor from the two-factor model into two separate factors labeled

Programmatic Orientation (seven items) and School Counseling Services (seven items).

The third factor in the three-factor model is School Counselors Use of Computer

Software (three items). In the three-factor model, the Programmatic Orientation factor

has a reliability coefficient of .79, School Counseling Services has a reliability coefficient

of .81, and School Counselors Use of Computer Software has a reliability coefficient of

.83. Items comprising the factors in both models use a 4-point Likert scale (1 for not

present, 2 for development in progress, 3 for partly implemented, and 4 for fully

implemented; Clemens et al., 2010).

Given the continued emphasis on CSCP and ASCA National Model

implementation, it is critical that practicing school counselors, state and district leaders,

counselor educators, and researchers have access to psychometrically sound

instruments that measure ASCA National Model implementation. While the SCPIS was

previously validated, researchers call for further evaluation of the SCPIS to compare

results across contexts and to determine which factor model is more preferable

(Clemens et al., 2010). Therefore, the purpose of this study was to utilize data from a

large national sample to address the research question: What is the factor structure of

the SCPIS? Specifically, one-, two-, and three-factor models were examined for the best

fitting model.

To validate the SCPIS and determine the factor structure and best fitting model, Confirmatory Factor Analysis (CFA) was used. This process was used because CFA is a common statistical analysis method that allows researchers to determine the relationship between items on an instrument (e.g., questions on a survey) and factors (Brown, 2015). A factor is a set of items on an instrument that are related; in other words, the items within one factor measure a similar concept (e.g., the concept of school counseling services). CFA was also used because it allows researchers to determine the number of factors that best measure the overall concept the instrument is designed to measure (e.g., the overall concept of ASCA National Model implementation).

Method

Participants

The participants in this study were a sample of the 15,106 ASCA members who were practicing at the elementary, middle, secondary, or K-12 level. A total of 4,598 school counselors responded to the survey, yielding a 30% response rate. Most of the participants identified as female (86%), Caucasian (82%), and working in suburban (44%) high school (37%) settings. Forty-six percent of respondents reported being between the ages of 31 and 60 and being certified as a school counselor for between one and eight years (66%). In terms of school size, 39% reported working in schools with 500 to 1,000 students and with student caseloads of 251-500 students (53%). Participants reported that 25% to 50% of their students were eligible for free and reduced lunch and were racially or ethnically diverse (53%). The participant demographics reflect the demographics of school counselors nationally (ASCA, 2020).

Sampling Procedures

A pilot study was conducted to assess survey clarity and establish the length of time needed to complete the survey (Andrews et al., 2003; Dillman et al., 2014). Four practicing school counselors completed the survey and all reported that the survey and directions were clear and they were able to follow them easily. Based on pilot participant feedback, the survey was expected to take approximately 10 to 15 minutes to complete.

The authors received permission for the study from the institutional review board. Next, SurveyShare was used to send an email introducing potential participants to the study and providing them with a survey link. Once participants followed the survey link, they were directed to an informed consent page. After completing the informed consent and online survey, participants had the option to partake in a random drawing using disassociated email addresses to increase participation (Dillman et al., 2014). A follow up email was sent one week later to all potential participants who did not complete the survey initially, and the survey link was inactivated three weeks after the initial survey link was sent.

Survey and Data Analyses

School Counseling Program Implementation Survey

The SCPIS is a 17-item self-report survey using a 4-point Likert scale (1 for *not present*, 2 for *development in progress*, 3 for *partly implemented*, and 4 for *fully implemented*) to measure the extent to which school counseling programs implement the ASCA National Model (Clemens et al., 2010). The items on the SCPIS reflect observable characteristics of the ASCA National Model synthesized from an extensive literature review. For this study, the SCPIS was adapted in collaboration with the survey

authors (i.e., Clemens et al., 2010) to measure the frequency with which school counselors spend time implementing components of the ASCA National Model. The purpose of the adaptation was to twofold. First, how school counselors time is spent is an ongoing and pressing issue in the field of school counseling (ASCA, 2019b; Burnham & Jackson, 2000; Rayle & Adams, 2007). ASCA continues to emphasize how school counselors should spend their time (e.g., 80% or more of time performing direct and indirect services, and the remaining time on program management, school support service and fair-share responsibilities; ASCA, 2019b); and research indicates time spent on ASCA aligned activities has important benefits for student outcomes (Carey, Harrington, Martin, & Hoffman, 2012; Carey, Harrington, Martin, & Stevenson, 2012; Dimmitt & Wilkerson, 2012; Wilkerson et al., 2013); and school counselor job satisfaction (Bardhoshi et al., 2014; Cervoni & DeLucia-Waack, 2011; Cinotti, 2014; Pyne, 2011). Second, we wanted to determine the efficacy of the SCPIS in measuring how school counselors spend their time given the lack of psychometrically sound measures available. As a result, Likert scale ratings were changed to: 1 for *I never do this*, 2 for *I rarely do this*, 3 for *I occasionally do this,* and 4 for *I frequently do this*. A description of the 17 SCPIS items and the means and standard deviations of each item for the current study are located in Table 1.

Data Analyses

CFA measures the relationship between indicators (i.e., items on an instrument) and factors (i.e., a set of items on an instrument that are related; Brown, 2015). CFA is commonly used by researchers to evaluate the structure of an instrument because it allows researchers to verify the number of factors within an instrument, determine how

the factors are related, and identify which items best fit within each factor (Brown, 2015). In addition, CFA is used to determine how an instrument should be scored (Brown, 2015).

To conduct the CFA for this study, data were analyzed within a factor analytic framework using Mplus 8. The items were treated as ordinal. The estimation method employed for the CFA was Maximum Likelihood Robust (MLR) estimation, which is a more accurate estimate for non-normal data (Savalei, 2010). While the data were ordinal (i.e., Likert-type scale), Mplus uses a different maximum likelihood fitting function for categorical variables. The pattern coefficient for the first indicator of each latent variable was fixed to 1.00. Goodness of fit was assessed based on four goodness of fit indices: Chi-Square, Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), and Standardized Root Mean Square Residual (SRMR). For RMSEA, Browne and Cudeck (1992) suggested that values less than .08 might indicate a reasonable fit. CFI values greater than .90, which indicates that the proposed model is greater than 90% of the baseline model, will serve as an indicator of adequate fit (Kline, 2016). Perfect model fit is indicated by SRMR = 0, and values greater than .05 may indicate poor fit (Kline, 2016).

First, both a two- and three-factor CFA, which were based on the work of Clemens et al. (2010), were conducted. For the two-factor model, ASCA National Model Program Implementation (14 items) and School Counselors Use of Computer Software (three items) factors were created based on the items belonging to the original subscales suggested by Clemens et al. (2010). For the three-factor model, Programmatic Orientation (seven items), School Counselors Use of Computer Software

(three items), and School Counseling Services (seven items) factors were created based on the items belonging to the original subscales suggested by Clemens et al. (2010).

After determining the best fitting model, a bifactor model was conducted. Bifactor analysis is similar to CFA but bifactor models test a general factor in addition to group factors. In the bifactor model specification, all items were allowed to load on the general factor and each item was allowed to load on a bifactor that was specific to the group factor to which the item belonged. Rodriguez et al. (2016a, 2016b) recommend several indices for evaluating bifactor models. The mean item loading on the general factor as well as the explained common variance (ECV) and omega hierarchical (omegaH) indices were computed. ECV is the proportion of the common variance explained by the general factor (Rodriguez et al., 2016a). OmegaH is an index of total score reliability and suggests that values higher than .80 for the general factor might indicate that the scale is essentially unidimensional; in other words, the majority of variance is attributable to a single common source (Rodriguez et al., 2016b).

Results

Data Screening

There were a total of 4,598 respondents. Five respondents did not answer any of the SCPIS items and were eliminated. Missing values for all variables did not exceed 1.4% (i.e., 60 respondents). Little's MCAR test (Little, 1988) was not statistically significant, $\chi^2 = 1219.06$, $df = 1350$, $p = .99$, suggesting that values could be treated as missing completely at random. Missing values were imputed using Expectation-Maximization algorithm (EM). All values were within range and no univariate or

multivariate outliers were detected. The data violated the assumption of univariate normality, with Kolomogorov-Smirnov tests rejecting all the null hypotheses for the 17 items ($p < .001$). The estimation method employed for the CFA was Maximum Likelihood Robust (MLR) estimation, which is a more accurate estimate for non-normal data (Savalei, 2010). While the data were ordinal (i.e., Likert-type scale), Mplus uses a maximum likelihood fitting function for categorical variables. The variance inflation factor for all items were below 4.0, suggesting multicollinearity is not problematic.

Descriptive Statistics

The frequency distributions for the 17 items of the SCPIS are reported in Table 2. Most respondents rated items as *occasionally* or *frequently* performing each function. Using the three-factor model recommended by Clemens et al. (2010), coefficient alpha was computed. Programmatic Orientation (PO), School Counseling Services (SER), and School Counselors Use of Computer Software (CS) had a coefficient alpha of .80, .76, and .78, respectively. For the two-factor solution, which combines two of the factors (PO and SER), coefficient alpha was .85.

Confirmatory Factor Analyses and Bifactor Model Results

Both holdout samples produced the exact same results. The final holdout sample is reported in this section. The two- and three-factor CFA results are shown in Table 3. While neither model demonstrated perfect fit, the three-factor solution was a better fit than the two-factor model based on the chi-squared difference test using the loglikelihood values and scaling correction factors obtained with the MLR estimator (Satorra & Bentler, 2010). For the three-factor model, the latent factors were strongly

correlated with each other (ranging from .46 to .76) suggesting overlap among the factors.

Bifactor analysis was conducted using the three-factor model. The goodness-of-fit indices suggest the implied covariance matrix was a reasonable fit to the observed covariance matrix (see Table 3). Standardized loading and item level expected common variance (I-ECV) values are reported in Table 4. For the general (Total) and group factors (PO, SER, and CS), omegaH was .78, .01, .07, and .04 respectively. Generally, values of .80 or higher suggest the total score could be considered essentially unidimensional. In this study, the .78 value for the general factor suggested that while the value was close to .80, the data could be viewed as not essentially unidimensional. Looking at the unique variance accounted for, PO accounted for almost none (.01) of the variance while SER and CS accounted for .32 and .56 respectively. The amount of group factor variance that is attributed to the general factors were quite high for PO (.82), SER (.56), and CS (.83). The reliability coefficient, as measured with *omega*, for the general, PO, SER, and CS were .87, .01, .57, and .71, respectively. The explained common variable (ECV) for the general factor was .60, but was very small for the subscale factors of PO, SER, and CS with values of .06, .16, and .18, respectively. For the general and group factors (PO, SER, and CS), factor determinacy values were estimated to be: .93, .70, .82, and .95, respectively. These values imply that only factor scores from the general factor and SER and CS factors are trustworthy.

Discussion and Implications

Previous research indicates that implementing a comprehensive school counseling program that is aligned with the ASCA National Model has impacts on

academic improvement, reduced rates of discipline, and increased graduation rates (Carey, Harrington, Martin, & Hoffman, 2012; Carey, Harrington, Martin, & Stevenson, 2012; Salina et al., 2013; Wilkerson et al., 2013). Although these studies indicate positive outcomes, it is unclear as to whether the frequency with which school counselors engage in activities such as programmatic orientation (e.g., closing achievement gap plan), counseling services (e.g., 80% of time on activities that directly benefit students), and using computer software (e.g., analyze student data) could have more or less of an impact. Moreover, the school counseling field lacks reliable and valid instruments that can measure the frequency with which school counselors spend time implementing components of the ASCA National Model. Such an instrument allows practicing school counselors to assess the extent to which they are aligning their program with national standards and to identify program strengths and areas in need of improvement related to program delivery.

Originally, Clemens et al. (2010), developed the SCPIS to measure the extent to which school counseling programs implement the ASCA National Model. After adapting the instrument to measure the frequency with which school counselors spend time implementing components of the ASCA National Model, this study aimed to confirm the factor structure of the SCPIS. Based on Clemens' et al. (2010) recommendation of a two-factor or three-factor model, we used a confirmatory factor analysis and looked at the structure of both models. Unlike the previous study, neither demonstrated perfect fit. However, the three-factor solution was a better fit than the two-factor model. The three factors are confirmed as Programmatic Orientation (PO), School Counseling Services (SER), and School Counselors Use of Computer Software (CS). Next, we conducted

bifactor analysis on the three-factor model. These results suggested that while the construct of the SCPIS is not unidimensional, after accounting for the general dimension (i.e., all items), only the factors of School Counseling Services (SER) and School Counselors Use of Computer Software (CS) account for enough variance to create stable measures of the frequency with which school counselors spend time implementing components of the ASCA National Model. In other words, if the total score for the SCPIS is used for making inferences about the frequency with which school counselors spend time implementing components of the ASCA National Model, the Programmatic Orientation subscale should not be reported. These findings confirm that the SCPIS yields valid and reliable inferences about the frequency with which school counselors spend time implementing components of the ASCA National Model, however, caution should be used if reporting a total score.

Although not the focus of this study, an examination of individual items on the SCPIS yielded some noteworthy results regarding the frequency with which school counselors engage in specific activities. First, 46.77% of respondents reported never or rarely writing a mission statement to focus the program. As noted in the ASCA National Model (2019b), the school counseling program mission statement "ensures all students benefit from a school counseling program emphasizing equity, access, success, and long-range results" (p. 31). Furthermore, the mission statement provides a basis for informing stakeholders regarding the purpose of the school counseling program. This omission leaves for the potential lack of understanding of the school counselor's role within the school and how services can positively impact student outcomes.

Another area of concern is 38.58% of participants reported never or rarely analyzing student data to identify interventions to close achievement gaps. This is disconcerting given previous calls to the profession for increased accountability and research that indicates use of data can impact student performance and assist school counselors in developing programs that focus on closing achievement gaps (Dahir & Stone, 2005; House & Hayes, 2002; Young & Kaffenberger, 2011). School counselor educators could ensure that students leave preparation programs with the knowledge and skills to use data to develop comprehensive programs. This could be done through internship classes where students have the opportunity to apply their knowledge and use real school data to identify opportunity gaps, design interventions, and assess outcomes. School districts, through the use of professional learning communities, could seek consultation in developing effective interventions and aligned outcome measures.

School counselors in this study also reported lower scores on having priorities represented on curriculum and education committees. This finding is surprising given the focus of school counselors as leaders (ASCA, 2012). Recently, Geiger and Oehrtman (2020) argued that school counseling leadership teams can support the use of interventions that are aligned with the goals of administrators and teachers. One strategy to ensure representation is for school counselors to join the leadership team and engage in school improvement planning.

The findings provide other implications for school districts and practitioners. First, school districts can use the SCPIS to measure the frequency with which school counselors are engaging in specific activities. The data can then be used to focus professional development activities to assist practitioners in designing programs that are

aligned to the ASCA Model and school needs. Districts could also examine on an aggregate level how the frequency of specific activities relates to district-wide achievement data. For example, does time spent on use of data for program planning relate to positive student outcome data? School counselors can use the instrument to measure the frequency with which they are spending their time and determine if there needs to be more balance in some areas. The SCPIS can also help school counselors prioritize areas in which they may need more training. Finally, the SCPIS may help school counselors to engage in self-advocacy regarding how they are spending their time on school counseling program related activities.

Limitations

There are several limitations in the current study. First, respondents were members of a national school counseling association. Given there are many opportunities for professional development regarding the National Model, their responses could have been influenced by that training. Constrastingly, those who are not part of the association may not have access to specific training and, therefore, their responses could potentially be different due to lack of exposure to related content. Second, this was a self-report survey, so the respondents could have answered in a manner that was socially desirable. Third, given the 30% survey response rate, generalizing these results to the population of school counselors is not recommended. Fourth, rewording items to be frequency-oriented rather than extent of implementation-oriented may have impacted the best fit model. Finally, since this was an online survey, only those with access to email and internet at the time the survey was given could have the opportunity to participate.

Future Research

Future research should focus on validating the SCPIS in a variety of contexts. For example, researchers could replicate this study with school counselors who are non-members of a national school counseling association. To extend Clemens et al. (2010) call for continued validation of the SCPIS, researchers could also replicate this study with school counselors in specific settings (e.g., urban, suburban, rural) to compare differences in the frequency with which school counselors spend time implementing components of the ASCA National Model. Given the importance of the relationship between school counselors and building administrators (Zalaquett et al., 2012), future research could also focus on comparing school counselor and building administrator scores on the SCPIS. Finally, the SCPIS could be used alongside other instruments such as the School Counselor Knowledge and Skills Survey for Multi-Tiered Systems of Support (SCKSS; Authors et al., 2020) to expand on research examining the relationship between how school counselors spend their time and other best practice approaches to supporting all students (e.g., multi-tiered systems of support).

Conclusion

Measuring how school counselors spend their time in relation to program implementation, and aligning how school counselors spend their time with best practice recommendations continue to be urgent issues in the field of school counseling (ASCA, 2019b; Carey & Dimmitt, 2012; Dimmitt & Wilkerson, 2012; Jones et al., 2019; Wilkerson et al., 2013). These are important issues because research indicates that when school counselors spend their time implementing CSCPs aligned with best practice recommendations (e.g., ASCA National Model; 80% of time on direct student

services), students improve academically (Carey, Harrington, Martin, & Stevenson, 2012; Wilkerson et al., 2013) and behaviorally (Carey, Harrington, Martin, & Hoffman, 2012). When school counselors spend their time implementing CSCPs aligned with best practice recommendations, they also contribute to reducing equity and achievement gaps (Davis et al., 2013; Leon et al., 2011) and increasing graduation rates (Salina et al., 2013).

Measuring how their time is spent in relation to program implementation allows practicing school counselors to assess the extent to which they are aligning their program with national standards, and to identify program strengths and areas in need of improvement related to program delivery. For example, if a school counseling team uses the SCPIS to measure the frequency with which they spend time on ASCA National Model aligned activities, results may indicate they occasionally spend time on school counseling services (e.g., activities that directly benefit students). In this case, the school counseling team can use the results to discuss and plan ways to increase time spent on direct students' services (e.g. individual and group counseling, classroom instruction).

In order for practicing school counselors, state and district leaders, counselor educators, and researchers to measure how school counselors' time is spent, validated measures such as the SCPIS are needed. The three factors of the SCPIS (i.e., Programmatic Orientation, School Counseling Services, School Counselors Use of Computer Software) allow school counselor leaders and school counselors to identify the frequency with which time is spent on ASCA aligned activities and identify areas in need of improvement. This is a critical step in allocating school counselors time

according to best practice recommendations to maximize impact on student outcomes. Additional use of the SCPIS in the field and in research is needed, however, results of this study demonstrate the SCPIS can be used as a valid instrument to measure the frequency with which school counselors spend their time on ASCA aligned activities.

References

American School Counselor Association. (2003). *The ASCA National Model: A framework for school counseling programs* (1st ed.).

American School Counselor Association. (2005). *The ASCA National Model: A framework for school counseling programs* (2nd ed.).

American School Counselor Association. (2014). *Mindsets and behaviors for student success: K-12 college- and career-readiness standards for every student.*

American School Counselor Association. (2016). *ASCA ethical standards for school counselors.*

American School Counselor Association. (2019a). *ASCA school counselor professional standards and competencies.*

American School Counselor Association. (2019b). *The ASCA National Model: A framework for school counseling programs* (4th ed.).

Andrews, D., Nonnecke, B., & Preece, J. (2003). Electronic survey methodology: A case study in reaching hard-to-involve internet users. *International Journal of Human–Computer Interaction, 16*(2), 185-210. https://doi.org/10.1207/S15327590IJHC1602_04

Astramovich, R. L. (2016). Program evaluation interest and skills of school counselors. *Professional School Counseling, 20*(1), 54–64. https://doi.org/10.5330/1096-2409-20.1.54

Bardhoshi, G., Schweinle, A., & Duncan, K. (2014). Understanding the impact of school factors on school counselor burnout: A mixed-methods Study. *The Professional Counselor 4*(5), 426-443. https://doi.org/10.15241/gb.4.5.426

Brown, T. A. (2015). *Confirmatory factor analysis for applied research* (2nd ed).
Guilford.

Browne, M. W., & Cudeck, R. (1992). Alternative ways of assessing model
fit. *Sociological Methods & Research, 21*(2), 230-
258. https://doi.org/10.1177/0049124192021002005

Burnham, J. J., & Jackson, C. M. (2000). School counselor roles: Discrepancies
between actual practice and existing models. *Professional School Counseling, 4*,
41-49.

Campbell, C. A., & Dahir, C. A. (1997). *Sharing the vision: The national standards for
school counseling programs*. American School Counselor Association.

Carey, J., & Dimmitt, C. (2012). School counseling and student outcomes: Summary of
six statewide studies. *Professional School Counseling, 16*(2), 146-153.
https://doi.org/10.1177/2156759X0001600204

Carey, J., Harrington, K., Martin, I., & Hoffman, D. (2012). A statewide evaluation of the
outcomes of the implementation of ASCA National Model school counseling
programs in rural and suburban Nebraska high schools. *Professional School
Counseling, 16*(2), 100-107. https://doi.org/10.1177/2156759X0001600202

Carey, J., Harrington, K., Martin, I., & Stevenson, D. (2012). A statewide evaluation of
the outcomes of the implementation of ASCA National Model school counseling
programs in Utah high schools. *Professional School Counseling, 16*(2), 89-99.
https://doi.org/10.5330/psc.n.2012-16.89

Cervoni, A., & DeLucia-Waack, J. (2011). Role conflict and ambiguity as predictors of

    job satisfaction in high school counselors. *Journal of School Counseling, 9*(1).

    http://files.eric.ed.gov/fulltext/EJ914271.pdf

Cinotti, D. (2014). Competing professional identity models in school counseling: A

    historical perspective and commentary. *The Professional Counselor, 4*(5), 417-

    425. https://doi.org/10.15241/dc.4.5.417

Clemens, E. V., Carey, J. C., & Harrington, K. M. (2010). The school counseling

    program implementation survey: Initial instrument development and exploratory

    factor analysis. *Professional School Counseling, 14(*2), 125-134.

    https://doi.org/10.1177/2156759X1001400201

Clemens, E. V., Milsom, A., & Cashwell, C. S. (2009). Using leader-member exchange

    theory to examine principal-school counselor relationships, school counselors'

    roles, job satisfaction, and turnover intentions. *Professional School Counseling,*

    13(2), 75-85. https://doi.org/10.5330/PSC.n.2010-13.75

Dahir, C. A. & Stone, C. B. (2003). Accountability: A M.E.A.S.U.R.E. of the impact

    school counselors have on student achievement. *Professional School*

    Counseling, 6, 214-221. https://www.jstor.org/stable/42732431?seq=1

Davis, P., Davis, M., & Mobley, J. (2013). The school counselor's role in addressing the

    advanced placement equity and excellence gap for African-American students.

    Professional School Counseling, 17(1), 32-39. https://doi.org/

    10.5330/PSC.n.2013-17.32.

Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, phone, mail, and mixed-*

    mode surveys: The tailored design method. Wiley.

Dimmitt, C. (2009). Why evaluation matters: Determining effective school counseling practices. *Professional School Counseling, 12*(6), 395-399. https://doi.org/10.5330/PSC.n.2010-12.395

Dimmitt, C., & Wilkerson, B. (2012). Comprehensive school counseling in Rhode Island: Access to services and student outcomes. *Professional School Counseling, 16*(2), 125-135. https://doi.org/10.1177/2156759x001600205

Dollarhide, C. T., & Saginak, K. A. (2017). *Comprehensive school counseling programs: K-12 delivery systems in action* (3rd ed.). Pearson.

Geiger, S., & Oehrtman, J. (2020). School counselors and the school leadership team. *Professional School Counseling*, 23(1 part 3), 1-9. https://doi.org/10.1177/2156759X20903566

Gysbers, N. C. (1997). Involving counseling psychology in the school-to-work movement: An idea whose time has come. *Counseling Psychologist, 25*(3), 413-427. https://doi.org/10.1177/0011000097253004

Gysbers, N. C. (2001). School guidance and counseling in the 21st century: Remember the past into the future. *Professional School Counseling, 5*(2), 96-105. https://eric.ed.gov/?id=EJ655172

Gysbers, N. C. (2004). Comprehensive guidance and counseling programs: The evolution of accountability. *Professional School Counseling, 8*(1), 1-15. http://www.jstor.org/stable/42732409

House, R. M., & Hayes, R. L. (2002). School counselors becoming key players in school reform. *Professional School Counseling, 5*, 249-256. https://eric.ed.gov/?id=EJ655189

Jones, S., Ricks, J., Warren, J., & Mauk, G. (2019). *Exploring the career and college readiness of high school students serviced by RAMP and non-RAMP school counseling programs in North Carolina.* ASCA Research Report. www.schoolcounselor.org/asca/media/asca/careers-roles/researchreport-jones.pdf

Kaffenberger, C., & Young, A. (2013). *Making data work.* American School Counselor Association.

Kline, R. (2016). *Principles and practice of structural equation modeling* (4th ed.). The Guilford Press.

Kolodinsky, P., Draves, P., Schroder, V., Lindsey, C., & Zlatev, M. (2009). Reported levels of satisfaction and frustration by Arizona school counselors: A desire for greater connections with students in a data-driven era. *Professional School Counseling, 12*(3), 193-199. https://doi.org/ 10.5330/PSC.n.2010-12.193

Lapan, R.T. (2012). Comprehensive school counseling programs: In some schools for some but not in all schools for all students. *Professional School Counseling, 16*(2), 84-88. https://doi.org/10.5330/PSC.n.2012-16.84

Lapan, R.T., Gysbers, N. C, & Petroski, G. F. (2001). Helping seventh graders be safe and successful: A statewide study of the impact of comprehensive guidance and counseling programs. *Journal of Counseling & Development, 75*, 292-302. https://doi.org/10.1002/j.1556-6676.2001.tb01977.x

Lapan, R.T., Gysbers N. C, & Sun, Y. (1997). The impact of more fully implemented guidance programs on the school experiences of high school students: A

statewide evaluation study. J*ournal of Counseling & Development, 75*, 292-302. https://doi.org/10.1002/j.1556-6676.1997.tb02344.x

Lapan, R., Poynton, T., Balkin, R., & Jones, L. (2019). *ASCA National Model implementation and appropriate school counselor ratios promote more informed college decision-making.* ASCA Research Report. https://www.schoolcounselor.org/getmedia/123d57f8-7424-421f-bf39-561bad495ea9/Effectiveness-App-Ratios-Infographic.pdf

León, A., Villares, E., Brigman, G., Webb, L., & Peluso, P. (2011). Closing the achievement gap of Latina/Latino students. *Counseling Outcome Research and Evaluation, 2(*1), 73-86. https://doi.org/10.1177/2150137811400731

Little, R. J. A. (1988). A test of missing completely at random for multivariate data with missing values. *Journal of the American Statistical Association 83*, 1198-1202.

Mason, E. (2010). Leadership practices of school counselors and counseling program implementation. *NASSP Bulletin*, *94*(4), 274–285. https://doi.org/10.1177/0192636510395012

Nelson, J. A., Robles-Pina, R., & Nichter, M. (2008). An analysis of Texas high school counselors' roles: Actual and preferred counseling activities. *Journal of Professional Counseling: Practice, Theory & Research, 36*(1), 30-46. https://doi.org/10.1080/15566382.2008.12033842

Neyland-Brown, L., Francis, J. D., & Burns, G. (2019). Role responsibilities, time commitments, and counseling Activities of Ohio licensed school counselors. *Journal of Counselor Practice, 10*(1), 1-21. https://doi.org/10.22229/rrt1012019

Pyne, J. R. (2011). Comprehensive school counseling programs, job satisfaction, and

 the ASCA National Model. *Professional School Counseling, 15*(2), 88-97.

 https://doi.org/10.1177/2156759x1101500202

Rayle, A. D., & Adams, J. R. (2007). An exploration of 21st century school counselors'

 daily work activities. *Journal of School Counseling, 5*(8).

 http://jsc.montana.edu/jsc_2003-2010.html#2007

Rodriguez, A., Reise, S.P., & Haviland, M.G. (2016a). Applying bifactor statistical

 indices in the evaluation of psychological measures. *Journal of Personality

 Assessment, 98*(3), 223-237. https://doi.org/10.1080/00223891.2015.1089249.

Rodriguez, A., Reise, S.P., & Haviland, M.G. (2016b). Evaluating bifactor models:

 Calculating and interpreting statistical indices. *Psychological Methods,* 21(2),

 137-150, https://doi.org/10.1037/met0000045

Rodriguez, A. J., Watson, J. C., & Gerlach, J. (2018). Comprehensive school counseling

 programs. *Journal of Professional Counseling: Practice, Theory & Research,

 45*(2), 95–110. https://doi-https.www.doi.org/10.1080/15566382.2019.1646082

Ruiz, M., Peters, M. L., & Sawyer, C. (2018). Principals' and counselors' lens of the

 school counselor's role. *Journal of Professional Counseling: Practice, Theory &

 Research, 45*(1), 1-16. https://doi.org/10.1080/15566382.2019.1569321

Salina, C., Girtz, S., Eppinga, J., Martinez, D., Kilian, D., Blumer Kilian, D., Lozano, E.,

 Martinez, A., Crowe, D., De La Barrera, M., Mendez, M., & Shines, T. (2013). All

 hands on deck: A comprehensive, results-driven counseling model. *Professional

 School Counseling, 17*(1), 63-75. https://doi.org/10.1177/2156759X0001700112

Satorra, A. & Bentler, P.M. (2010). Ensuring positiveness of the scaled difference chi-square test statistic. *Psychometrika 75*(2), 243-248. https://doi.org/10.1007/s11336-009-9135-y

Savalei, V. (2010). Small sample statistics for incomplete nonnormal data: Extensions of complete data formulae and a monte carlo comparison. *Structural Equation Modeling, 17*(2), 241-264. https://doi.org/10.1080/10705511003659375

Scarborough, J. L. (2005). The school counselor activity rating scale: An instrument for gathering process data. *Professional School Counseling, 8*(3), 274-283. https://eric.ed.gov/?id=EJ710410

Scarborough, J. L., & Culbreth, J. R. (2008). Examining discrepancies between actual and preferred practice of school counselors. *Journal of Counseling and Development, 86*(4), 446-459. https://doi.org/10.1002/j.1556-6678.2008.tb00533.x

Sink, C. A. (2009). School counselors as accountability leaders: Another call for action. *Professional School Counseling, 13*(2), 68-74. https://doi.org/10.5330/PSC.n.2010-13.68

Sink, C. A., Akos, P., Turnbull, R. J., & Mvududu, N. (2008). An investigation of comprehensive school counseling programs and academic achievement in Washington State middle schools. *Professional School Counseling 12*, 43-53. https://doi.org/10.5330/PSC.n.2010-12.43

Sink, C. A., & Stroh, H. R. (2003). Raising achievement test scores of early elementary school students through comprehensive school counseling programs.

Professional School Counseling, 6, 352-364. https://www.jstor.org/stable/42732452

Studer, J. R, Diambra, J. F, Breckner, J. A, & Heidel, R.E. (2011). Obstacles and successes in implementing the ASCA National Model in schools. *Journal of School Counseling, 9*(2). http://jsc.montana.edu/articles/v9n2.pdf

Walsh, M. E., Barrett, J. G., & DePaul, J. (2007). Day-to-day activities of school counselors: Alignment with new directions in the field and the ASCA National Model. *Professional School Counseling, 10*(4), 370-378. https://doi.org/10.5330/prsc.10.4.47p342040286mw72

Whiston, S.C., & Aricak, T. (2008). Development and initial investigation of the school counseling program evaluation scale. *Professional School Counseling, 11*, 253-261. https://doi.org/10.5330/PSC.n.2010-11.253

Wilkerson, K., Perusse, R., & Hughes, A. (2013). Comprehensive school counseling programs and student achievement outcomes: A comparative analysis of RAMP versus non-RAMP schools. *Professional School Counseling, 16*(3), 172-184. https://doi.org/10.1177/2156759x1701600302

Young, A., & Kaffenberger, C. (2011). The beliefs and practices of school counselors who use data to implement comprehensive school counseling programs. *Professional School Counseling, 15*(2), 67-76. https://doi.org/10.1177/2156759X1101500204

Zalaquett, C. P., & Chatters, S. J. (2012). Middle school principals' perceptions of middle school counselors' roles and functions. *American Secondary Education, 40*(2), 89-103.

Biographical Statements

Jacob Olsen, Ph.D., is an assistant professor and school counseling coordinator at California State University – Long Beach. Prior to becoming a counselor educator in 2016, he spent several years as a school counselor with Highline Public Schools outside Seattle, Washington. His research interests and expertise include school counseling program and MTSS alignment and school counseling program implementation. He has published in a variety of peer-reviewed journals and is co-author of the book Making MTSS Work. Along with colleagues across multiple disciplines, he was awarded a $1.25 million dollar grant from the U.S. Department of Education to train school counseling and special education graduate students in culturally responsive transition support planning. He has also delivered several presentations and conducted district level trainings across multiple states.

Sejal Parikh Foxx is a Professor and Counseling Department Chair at UNC Charlotte. She is also the Director of the Urban School Counseling Collaborative. She has experience as an elementary and high school counselor. She is co-author of School Counseling in the 21st Century, 6th ed. In 2015, she received the Counselor Educator of the Year Award from the North Carolina School Counselors Association. She teaches both doctoral and master's level courses and her special areas of interest are school counseling, multicultural and social justice, urban education, and creating equity and access to college and career readiness. She has been successful working with interdisciplinary teams to obtain over $2 million dollars in grant funding from the Department of Education and National Science Foundation.

Claudia Flowers, Ph.D., is a professor of research, measurement, and evaluation at the University of North Carolina at Charlotte. Her research interests and expertise include psychometric issues in educational and counseling assessments. She has over 90 publications in the areas of assessment, measurement, and applied research methods. She is a member of the National Council on Measurement in Education (NCME) and serves on committees that support Diversity and Testing. She is a partner with the National Center and States Collaborative and serves on numerous states' Technical Advisory Committee and National Expert Advisory Panels that examine assessing students with disabilities. She services as a peer reviewer for the Institution of Education Sciences for US Department of Education.

Appendix

Table 1

Items, Means, and Standard Deviation for the SCPIS

Items	*M*	*SD*
1. Write a mission statement and use it as a foundation.	2.58	1.01
2. Organize services so that all students are well served and have access to them.	3.72	.54
3. Operate from a plan for closing the achievement gap for minority and lower income students.	3.13	.90
4. Use a set of clear measurable student learning objectives and establish goals for academics, social/personal skills, and career development.	3.28	.81
5. Complete needs assessments regularly and use to guide program planning.	2.96	.86
6. Use student performance data to decide how to meet student needs.	3.40	.75
7. Analyze student data by ethnicity, gender, and socioeconomic level to identify interventions to close achievement gaps.	2.74	.98
8. Perform duties that match my job description.	3.67	.58
9. Spend at least 80% of my time in activities that directly benefit students.	3.54	.69
10. Implement interventions designed to improve the school's ability to educate all students to high standards.	3.37	.73
11. Conduct an annual review to get information for improving next year's programs.	3.06	.93
12. Use computer software to access student data.	3.78	.55
13. Use computer software to analyze student data.	3.37	.84
14. Use computer software to use data for school improvement.	3.14	.89
15. Have resources to complete appropriate professional development activities.	3.27	.78
16. Have my priorities represented on curriculum and education committees.	2.78	.91
17. Communicate with parents to coordinate student achievement and gain.	3.24	.78

Note. All items are based on a 1-4-point scale.

Table 2

Frequency Distribution for Items on the SCPIS

	I Never Do This %	I Rarely Do This %	I Occasionally Do This %	I Frequently Do This %
PO1 Write a mission statement and use it as a foundation	17.09	29.68	31.64	21.60
SER2 Organize services so that all students are well served and have access to them	0.61	2.79	20.55	76.05
PO3 Operate from a plan for closing the achievement gap for minority and lower income students	6.38	16.09	35.92	41.61
PO4 Use a set of clear measurable student learning objectives and establish goals for academics, social/personal skills, and career development	3.22	13.00	36.69	47.09
PO5 Complete needs assessments regularly and use to guide program planning	5.75	21.82	43.28	29.15
PO6 Use student performance data to decide how to meet student needs	2.53	8.73	35.45	53.30
PO7 Analyze student data by ethnicity, gender, and socioeconomic level to identify interventions to close achievement gaps	12.93	25.65	36.23	25.19
SER8 Perform duties that match my job description	0.39	4.40	22.75	72.46
SER9 Spend at least 80% of my time in activities that directly benefit students	1.13	8.12	26.37	64.38
SER10 Implement interventions designed to improve the school's ability to educate all students to high standards	1.74	9.60	39.04	49.62
PO11 Conduct an annual review to get information for improving next year's programs	7.29	18.03	35.66	39.02

	I Never Do This %	I Rarely Do This %	I Occasionally Do This %	I Frequently Do This %
CS12 Use computer software to access student data	1.31	2.81	12.19	83.69
CS13 Use computer software to analyze student data	4.03	11.32	28.35	56.30
CS14 Use computer software to use data for school improvement	5.53	16.55	35.90	42.00
SER15 Have resources to complete appropriate professional development activities	2.20	13.78	38.82	45.20
SER16 Have my priorities represented on curriculum and education committees	9.65	26.19	40.80	23.36
SER17 Communicate with parents to coordinate student achievement and gain feedback for program improvement	2.61	12.91	41.93	42.54

Table 3

Results of the Confirmatory Factor Analysis for the Two-Factor, Three-Factor, and Bifactor Models

Model	*df*	χ2	RMSEA	90% CI RMSEA	CFI	SRMR
Two-factor	118	1366.71	.084	.080 - .088	.805	.066
Three-factor	116	1135.41	.076	.072 - .080	.841	.061
Bifactor	102	568.34	.055	.051 - .059	.927	.040

Table 4

Standardized Loading and I-ECV Values for SCPIS Factors

Items	General	PO	SER	CS	I-ECV
PO1	.51	.01			1.00
PO3	.58	-.35			.73
PO4	.61	.08			.99
PO5	.63	.11			.97
PO6	.56	-.17			.92
PO7	.66	-.43			.70
PO11	.69	.30			.84
SER2	.42		.19		.84
SER8	.23		.66		.11
SER9	.25		.70		.11
SER10	.54		.29		.77
SER15	.37		.28		.63
SER16	.55		.19		.89
SER17	.48		.15		.91
CS12	.24			.53	.17
CS13	.42			.88	.18
CS14	.57			.55	.52