IMRF Grant Report:

Psychometric Meta-analysis of the School Counselor Self-Efficacy Scale (SCSE)

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Introduction

The purpose of this IMRF-funded project was to conduct a psychometric evaluation and synthesis of the School Counselor Self-Efficacy Scale (SCSE; Bodenhorn & Skaggs, 2005).

Although self-efficacy research has received significant visibility in the last 30 years, studies examining the self-efficacy of school counselors were a more recent addition to the literature (Can, 2010). Along with limited research, there is also a noted lack of validated instruments to measure this construct in school counselors in a way that is reflective of their professional role – addressing all students' academic, career, and social/emotional development needs (ASCA, 2019). The SCSE is a free-access instrument created to ameliorate this measurement problem, and since its creation fourteen years ago, it has been used in more than 20 studies examining self-efficacy in school counselors. The SCSE is the only instrument with evidence of adequate score reliability and validity for measuring self-efficacy in professional school counselors.

The SCSE consists of 43 self-report items that measure school counselor self-efficacy across five subscales: (a) Personal and Social Development; (b) Leadership and Assessment; (c) Career and Academic Development; (d) Collaboration; and (c) Cultural Acceptance. The SCSE uses a 5-point Likert-type scale to measure responses (ranging from 1 = not confident to 5 = highly confident), with a composite mean calculated to demonstrate overall self-efficacy. The SCSE was developed over four studies: initial item development, item analysis, validity study, and factor analysis (Bodenhorn & Skaggs, 2005).

Since its release 14 years ago, the SCSE is increasingly used in studies that specifically examine self-efficacy in school counselors, often being the instrument of choice over already established self-efficacy measures in similar professions (e.g., mental health counseling, counseling psychology), or more global self-efficacy measures. A total of 24 studies of varying psychometric methodologies, samples, and quality have examined the psychometric properties of the SCSE, but this IMRF-funded study was the first systematic review of all available psychometric evidence. Beyond determining the extent to which the psychometric properties of the SCSE have been evaluated for use with counselors, the PI also sought to expand the existing psychometric evidence regarding the SCSE specifically with school counselors. Thus, the PI initiated a large sample ($n = 1005$) study to gather additional data regarding the psychometric characteristics of this instrument with school counselors working in K-12 schools. To date, this is the largest sample of counselors assessed using the SCSE, and the resultant data was then included in the psychometric synthesis to bolster combinatorial analyses.

Results

The purpose of this study was two-fold. First, using the largest national sample of K-12 school counselors to date ($n = 1,005$), we examined the psychometric characteristics of the SCSE. Using data from this sample, we aimed to answer the following research

questions: a) What is the internal consistency of the SCSE scores with a large national sample of professional school counselors?; b) How well does the suggested five factor SCSE model fit the data from a large sample of professional school counselors?; c) How substantially do SCSE scores correlate with theoretically related measures assessing school counselor burnout, perceived organizational support, principal support, and job satisfaction?; d) What are the resultant sample estimates of mean and standard deviation?; and e) Do comparative sample differences exist in counselor burnout or perceived organizational support given school counselor differences in experience and self-efficacy?

Second, we conducted a synthesis of all psychometric evidence published since the development of the SCSE, to answer several important questions: a) What is the internal consistency and test-retest reliability of SCSE scores for school counselors and trainees?; b) How substantially do SCSE scores correlate with relevant criterion measures?; c) What is known about the factor structure of the SCSE?; d) What are average levels of self-efficacy among the school counselor population?; and e) What empirical findings have emerged that help inform school counselor practitioners, educators, supervisors, and researchers who may use the SCSE? This summary of psychometric evidence also included results from our original, large sample psychometric study of the SCSE, to determine how the SCSE performs across all available studies.

The PI led a research team who reviewed all available published and dissertation studies of the SCSE internal consistency, test-retest reliability, external (convergent) validity with other related instruments, internal (exploratory and confirmatory factor analysis) validity, and average responses since its publication in 2005. Inclusion criteria applied to 12 studies using the SCSE, including results from a large sample ($n = 1,005$) original study conducted by the PI to evaluate the psychometric characteristics of this instrument with practicing professional school counselors. Aggregated internal consistency when all studies were weighted and then averaged was $\alpha = .96$ (CI95: .92, 1.00; $n = 2,409$), with subscale αs ranging from .70-.92 ($n = 2,809$). No test-retest reliability studies have been conducted to date with the SCSE. Convergent comparisons were robust across ten instruments, with the most robust correlations noted with the Career Counseling Self-Efficacy Scale ($r = .79$).

Evidence of internal structure for SCSE scores was established through very robust correlations between subscale and total scores, and among the subscales, all representing large effect sizes of r. As we identified only one exploratory factor analysis for the SCSE, we conducted a CFA with our sample of 1,0005 school counselors to examine the previously established 5-factor structure, as well as the unidimensional model. Our CFA results indicated the 5-factor model was a significant improvement over the 1-factor model, although it was still only a marginal to poor fit of the data to the model. For those interested in norm-referenced interpretation of the SCSE, T score and percentile rank transformations with a total sample of 1,874 school counselors were also generated on these aggregated sample results. We concluded that despite the promising results of our psychometric synthesis, additional psychometric studies would help further establish the reliability and validity of scores on the SCSE.

Specific Work Products

- **Bardhoshi, G**., Erford, B. T., & Jeong, Y. (under review). Psychometric Synthesis of the Counselor Burnout Inventory. *Journal of Counseling and Development*

References

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Bodenhorn, N., & Skaggs, G. (2005). Development of the School Counselor Self-Efficacy Scale. *Measurement and Evaluation in Counseling and Development, 38,* 14-28. https://doi.org/10.1080/07481756.2005.11909766

Can, G. (2010). Development of the elementary school counselor self-efficacy Scale. *Procedia - Social and Behavioral Sciences, 9*, 1158-1161.