

Research

Factors Predicting Attitudes Toward Evidence-Based Practice Among College Counselors

Sean Newhart, Sterling Travis, and Patrick R. Mullen

Evidence-based practice (EBP) has been proposed as a solution to the growing need for mental health treatment in the United States. We surveyed 205 college counselors regarding their attitudes toward EBP, institutional support, theoretical orientation, and job satisfaction. Our findings support the idea that counselors' attitudes toward EBP is predicted by institutional support and percentage of time spent engaged in training. The implications of these findings for practitioners and researchers are explored.

Keywords: evidence-based practice, college counseling, therapeutic approach, implementation, attitudes

As the demand for mental health services has increased across the United States, the field of mental health prevention and treatment has attempted to find ways to meet such demands. In 2015, the National Center for Health Workforce Analysis (2015) projected shortages across several mental health professions (i.e., psychiatrists, psychologists, social workers, school counselors, and marriage and family therapists) by 2025. One context in which meeting the demand for mental health services has become apparent is in college counseling centers, which experienced an average 30% increase in students seeking mental health services from 2010 to 2015 (Xiao et al., 2017). To meet such high demand, researchers and practitioners in the mental health field have searched for effective and efficient treatments, resulting in the conceptualization of evidence-based practice (EBP). The American Psychological Association (APA) has defined EBP as “the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences” (APA Presidential Task Force on Evidence-Based Practice, 2006, p. 273) and created a division of their organization (i.e., Division 12) committed to identifying psychological treatments supported by research. The American Counseling Association (ACA) has also identified the need for “techniques/procedures/modalities that . . . have an empirical or scientific foundation” (ACA, 2014, p. 10), emphasizing a focus on mental health interventions that have a strong research base.

Advocates of EBP in psychotherapy have identified this approach as ethically guided by data (Blease et al., 2016) while incorporating scientific and local evidence to achieve the best outcomes (Rousseau & Gunia, 2016).

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Also, EBP is safe, consistent, and cost-effective (Pope, 2003) and is associated with higher quality and more accountability (Spring, 2007). As a result, using EBP leads to an enhancement of the public's health and well-being (APA Presidential Task Force on Evidence-Based Practice, 2006). However, opponents of the movement have highlighted challenges of EBP, including the generalizability of EBP to real-world clinical practice (Kazdin, 2008) and underrepresented populations (Bernal & Rodriguez, 2012). Moreover, EBP may lack attention to empowerment and support of clients in achieving their own goals (S. C. Cook et al., 2017), and most EBP falls within the realm of cognitive-behavioral therapies (Emmelkamp et al., 2014). Other authors have also noted a lack of standardization of what qualifies an approach as "evidence based" and an overemphasis on interventions rather than clinical experience (Greenhalgh et al., 2014) and the burden of continuing education and training (J. M. Cook et al., 2009). Despite the potential challenges of EBP, researchers and practitioners have continued to focus on factors that influence the successful implementation of EBP across mental health settings and identifying best practices for the multitude of contexts in which mental health treatment is provided. Included in this focus are college counseling centers, with the idea that EBP could be a potential component to meet the increased need for mental health services on college campuses. Next, we review the extant literature on factors that influence the use of EBP in mental health practice and how EBP has been studied and applied to the context of college counseling centers.

Factors Influencing Use of EBP

Researchers have focused on factors that influence the use of EBP among mental health practitioners. Aarons (2004) contributed to this focus by examining factors that influenced attitudes toward EBP among mental health providers. Initial findings from this study indicated that, among clinical and case management service providers, intern status and educational attainment were positively related to attitudes toward adopting EBP. Further exploration of the relationship between educational attainment and attitudes toward EBP clarified that higher educational attainment was associated with a lower likelihood of adopting an EBP if required and greater willingness to adopt given the appeal of EBP (Aarons et al., 2010). This relationship was also supported in a sample of counselors ($n = 278$) working in substance use treatment facilities (B. D. Smith, 2013) and community child mental health practitioners ($n = 240$; Nakamura et al., 2011).

Through examining how attitudes predict the adoption of EBP, Aarons (2004) also created the Evidence-Based Practice Attitude Scale (EBPAS), which would be used in future studies exploring factors that influenced the adoption of EBP. Using the EBPAS with a large sample of outpatient mental health service providers ($N = 1,089$), Aarons et al. (2010) found demographic factors that influenced more favorable attitudes toward EBP, including higher age, identi-

fying as a woman or racial minority, identifying as a social worker, and having fewer years of clinical experience in the field. B. D. Smith's (2013) findings with substance use counselors supported the relationship between less clinical experience and favorable attitudes, whereas Stroobants et al.'s (2016) findings supported the relationship between higher age and favorable attitudes among youth care workers. However, Stroobants et al. also found that more clinical experience was related to more favorable attitudes among this population.

Researchers have examined other clinical and organizational factors that impact such attitudes and also studied the relationship between clinical experience and attitudes toward EBP. Beidas et al. (2017) examined the relationship between consumer, clinician, and organization characteristics and use of EBP, finding that clinicians with clinical experience and organizational size predicted the use of EBP, with higher clinical experience and smaller organizational size predicting the use of cognitive behavior therapy. Furthermore, both Lim et al. (2012) and B. D. Smith (2013) found that exposure to training was positively associated with favorable attitudes toward EBP. B. D. Smith also found that higher numbers of clients resulted in less favorable practitioner attitudes toward EBP. Thus, many demographic, experiential, and organizational factors have the propensity to affect individual practitioners' attitudes toward EBP.

EBP in College Counseling Centers

Although EBP has become a focus of the larger mental health field, a paucity of research has been conducted on the use of EBP in college counseling centers. Cooper et al. (2008) identified potential factors that limited the use of EBP in college counseling centers, including (a) the time-limited models often used in college contexts, (b) periods of treatment that are not intact based on the academic schedule, (c) comorbid diagnoses that are often present among the student population, (d) the standardized and structure treatment protocol that may not fit integrative approaches or consider multicultural factors, and (e) the overreliance on empirical evidence as being the only legitimate form of evidence. In a survey research study, Cooper et al. also found that the majority of college counseling center professionals were professionally informed reflective practitioners that believed that common factors influence treatment efficacy. Furthermore, the researchers found many variables that influenced practitioners' perspectives toward EBP in college counseling settings, such that women and those who engaged in a psychology doctoral training program perceiving EBP as less important than others. Years of practice also had a small, negative relationship with a negative view of EBP. Despite these findings, the researchers concluded that various forms of EBP were being practiced in college counseling settings.

Within the context of college counseling, researchers have also examined how EBP could serve as a potential solution to burnout. In a study with a small sample of university counseling center clinicians, Wilkinson et al. (2017) found that perceptions of one's practice as different from EBP and not using EBP were correlated with clinician burnout. However, the size and homo-

geneity of the sample limited generalizability of the findings, and the use of correlation limited the establishment of causation.

The larger body of research exploring factors that predict EBP have found that many demographic and clinical variables are related to attitudes toward EBP among practitioners working across a variety of settings (e.g., Aarons, 2004; Aarons et al., 2010; Nakamura et al., 2011; B. D. Smith, 2013). Researchers examining the use of EBP in college counseling have found similar relationships among similar variables and perceptions of EBP (Cooper et al., 2008) and explored EBP as a potential buffer for burnout among clinicians working in the college setting (Wilkinson et al., 2017). Researchers have also discussed the potential limitations of using EBP in the context of college counseling (e.g., Cooper, 2005; Cooper et al., 2008). However, research has yet to be conducted on factors that predict attitudes toward EBP among college counselors. The purpose of this study was to examine attitudes toward EBP among college counselors, specifically examining relationships among demographic and clinical variables and attitudes toward EBP as well as factors that predict attitudes toward EBP.

Current Study

The following research questions guided our analyses:

- Research Question 1:* Is there a difference in participants' attitudes toward EBP based on their education level, licensure status, institution type, and institution size?
- Research Question 2:* What are the relationships between attitudes toward EBP, institutional support for EBP, theoretical orientation, and job satisfaction?
- Research Question 3:* Are college counselors' attitudes toward EBP predicted by institutional (e.g., organizational climate) or personal (e.g., years of experience) factors?

Method

Participants

Table 1 presents demographic characteristics of the sample. The number of valid responses for each question varied. Participants identified primarily as female ($n = 154$, 75.1%), followed by male ($n = 47$, 22.9%), and one participant (0.5%) preferred not to disclose their gender. Reported ages ranged from 26 to 75 years ($M = 44.58$, $SD = 10.92$). Participants self-reported their racial/ethnic background as primarily White ($n = 166$, 81.0%), followed by Black/African American ($n = 17$, 8.3%), Asian ($n = 6$, 2.9%), Hispanic/Latino ($n = 5$, 2.4%), multiracial ($n = 5$, 2.4%), Native Hawaiian/other Pacific Islander ($n = 1$, 0.5%), African ($n = 1$, 0.5%), Eurasian ($n = 1$, 0.5%), and White/Latina ($n = 1$, 0.5%). The highest education level of most participants was a master's

TABLE 1
Demographic Characteristics of Participants

Characteristic	<i>M</i>	<i>SD</i>	<i>n</i>	%
Counseling experience (in years)				
Postgraduate	13.6	9.58		
College counseling	9.2	8.42		
Caseload	23.2	18.57		
Number of clinicians	6.1	6.42		
Gender				
Female			154	75.1
Male			47	22.9
Preferred not to say			1	0.5
Race/ethnicity				
White			166	81.0
Black/African American			17	8.3
Asian			6	2.9
Hispanic/Latino			5	2.4
Multiracial			5	2.4
Native Hawaiian/other Pacific Islander			1	0.5
Other			3	1.5
Education level				
Master's degree			115	56.1
Doctorate			85	41.5
Specialist			1	0.5
Other			2	1.0
Licensure status				
Fully licensed			182	88.8
Provisionally licensed			12	5.9
Other			7	3.4
Employment status				
Full-time			177	86.3
Part-time			22	10.7
Other			3	1.5
Institution type				
Four-year public university			73	35.6
Four-year private university			72	35.1
Four-year private college			43	21.0
Four-year public college			9	4.4
Institution size				
Small			74	36.1
Medium			54	26.3
Large			47	22.9
Very small			28	13.7
Participation in therapy				
Yes			166	81.0
No			28	13.7
Preferred not to say			8	3.9

Note. *N* = 205. Percentages are based on the total sample size; however, the number of valid responses to each question varied. For institution size, Small = 1,000 to 2,999 students; Medium = 3,000 to 9,999 students; Large = 10,000 or more students; Very small = fewer than 1,000 students.

degree ($n = 115$, 56.1%) or a doctorate ($n = 85$, 41.5%), whereas one participant (0.5%) had achieved a specialist degree and two (1.0%) reported “ABD” (we presumed this to mean “all but dissertation”). The average amount of postgraduate counseling experience was 13.6 years ($SD = 9.58$), whereas the

average amount of college counseling experience was 9.2 years ($SD = 8.42$). The average caseload of the sample was 23.2 clients ($SD = 18.57$), whereas the average number of clinicians working in participants' university counseling center was 6.1 ($SD = 6.42$).

The majority of participants were fully licensed ($n = 182$, 88.8%), whereas 12 (5.9%) were working under an initial provisional license. Seven (3.4%) identified other licensure statuses, such as licensed professional counselor supervisor, no license, or resident. Furthermore, most participants worked full-time in their institution's counseling center ($n = 177$, 86.3%), whereas some worked part-time ($n = 22$, 10.7%) and three (1.5%) identified other employment arrangements. Most participants worked at 4-year public ($n = 73$, 35.6%) or private ($n = 72$, 35.1%) universities, whereas a smaller number worked at 4-year private ($n = 43$, 21.0%) or public ($n = 9$, 4.4%) colleges. In terms of institution size, 74 participants (36.1%) worked at small (1,000 to 2,999 students) institutions, followed by 54 (26.3%) working at medium (3,000 to 9,999 students) institutions, 47 (22.9%) working at large (10,000 or more students) institutions, and 28 (13.7%) working at very small (fewer than 1,000 students) institutions.

Procedure

We employed a descriptive cross-sectional design that utilized mixed-methods survey research data collection methodology (Gall et al., 2007). Before the investigation, we obtained approval from our institutional research board. We were interested in examining a sample of mental health practitioners working in college and university counseling centers. Thus, we first identified a list of all institutions of higher education utilizing the Integrated Postsecondary Education Data System (National Center for Education Statistics, 2017). Then, we applied a simple random procedure in Excel to select institutions for which we would identify potential participants. Using the randomized list, we visited each institution's web page and attempted to obtain the name and physical address of a college counselor. If multiple counselors were available, a random number generator (Urbaniak & Plous, 2013) was used to select a clinician from the list of available practitioners. After the participant was selected, their name and physical address were identified and entered into an Excel spreadsheet. Before data collection, an a priori power analysis was conducted using G*Power (Version 3.1; Faul et al., 2009). With an alpha level of .05, minimum power of .90, an anticipated medium effect size of .13, and 14 predictors, 166 participants would be necessary to find a statistically significant effect in the regression model.

Following the identification of the sample, we applied tailored design method recommendations for survey research (Dillman et al., 2014). We mailed three rounds of notices to selected participants, inviting them to complete the survey materials through Qualtrics (<https://www.qualtrics.com>). Inside the initial notice, participants were provided with a \$1 incentive to participate in the study. If participants elected to participate in the study in response to

the initial notice, they then could access the survey using a URL provided in the notice. Participants were then asked to read the consent form, enter their personal access code, and make a decision regarding their participation in the study. Participants also had the option at any time to opt out of the study, which removed them from future invitations to participate. If participants did not opt out of or complete the study, they were mailed a reminder notice after 3 to 4 weeks. A second and final reminder notice was mailed 4 weeks after the initial reminder to the remaining participants. Of the notices mailed to the 500 participants identified, 23 were returned because the clinician no longer worked at the institution. The final total sample size was 477, with 205 participants completing the study in its entirety (43% response rate).

Measures

Demographic form. Basic demographic data were collected, including age, gender, race/ethnicity, highest education level, professional identity, licensure status, years of experience practicing, and average caseload size. We also collected data on number of clinicians in the center; institution type and size; percentage of time spent in various professional activities, such as in training; involvement and time spent providing services; and personal therapy incidence and length.

Theoretical orientation. The Theoretical Orientation Profile Scale–Revised (TOPS-R; Worthington & Dillon, 2003) is an 18-item instrument developed to measure theoretical orientation among counselors and trainees. Participants rate items on a 5-point, Likert-type scale of responses ranging from 0 (*not at all*) to 4 (*completely*), with six factors that correspond to six dominant theoretical orientations: Psychodynamic/Psychoanalytic, Humanistic/Existential, Cognitive/Behavioral, Family Systems, Feminist, and Multicultural. Worthington and Dillon (2003) reported through an exploratory factor analysis that the six factors accounted for 87.5% of the variance in their data and that factor loadings for all items ranged from .86 to .96. In a recent study using the TOPS-R with school counselors, researchers found Cronbach alphas ranging from .88 to .98 across seven subscales (Mullen et al., 2019), with a seventh subscale being added to measure postmodern/solution-focused orientations. Alpha reliability coefficients in this study for scores on each subscale were .95 for Psychodynamic/Psychoanalytic, .96 for Humanistic/Existential, .95 for Cognitive/Behavioral, .96 for Family Systems, .93 for Feminist, .95 for Multicultural, and .97 for Postmodern/Solution Focused.

Attitude toward EBP. We used the 15-item EBPAS (Aarons, 2004) to assess participants' attitudes toward adopting EBP. Dimensions include appeal of EBP, likelihood of adopting EBP given requirements for doing so, openness to new practices, and perceived divergence of usual practice with research-based/academically developed interventions. Items are rated on a 5-point scale of responses ranging from 1 (*not at all*) to 5 (*to a very great extent*). Investigations into the psychometric properties of the instrument have supported the measure with Cronbach's alpha internal consistency ranging from .74 to .91,

with a total scale Cronbach's alpha of .74 (Mullen et al., 2019). Total reliability of the scale (alpha) was .81 in this study, and Cronbach's alphas for scores on each subscale were .94 for Requirements, .73 for Appeal, .74 for Openness, and .62 for Divergence.

Organizational climate for EBP. The Implementation Climate Scale (ICS; Ehrhart et al., 2014) is an 18-item instrument that was developed to measure strategic climate for the implementation of EBP. Participants rate items on a 5-point, Likert-type scale from 0 (*not at all*) to 4 (*very great extent*) on six dimensions of the organizational context that indicate the extent to which their organization prioritizes and values successful implementation of EBP. These dimensions correspond to the organization's perceived focus on and educational support for EBP, recognition of and rewards for clinicians who practice EBP, and selection of and openness to hiring staff who have used EBP or are open to using new types of interventions. Ehrhart et al. (2014) reported results of an exploratory factor analysis that supported the six factors, accounting for 73% of the total variance, and demonstrating a good fit through confirmatory factor analysis. Furthermore, good internal consistency reliability was demonstrated with Cronbach's alpha coefficients ranging from .81 to .91. Construct validity was also supported by relationships between the ICS and other service climate measures, organizational climate, and organizational change. The alpha reliability of the ICS in this study was .92. Alpha coefficients for the six ICS subscales were as follows: .95 for Focus on EBP, .83 for Educational Support for EBP, .82 for Recognition for EBP, .57 for Rewards for EBP, .94 for Selection for EBP, and .91 for Selection for Openness.

Job satisfaction. Andrews and Withey's (1976) Job Satisfaction Questionnaire (JSQ) is a five-item measure of general job satisfaction. Participants rate items regarding their job satisfaction on a 7-point, Likert-type scale of responses ranging from 1 (*terrible*) to 7 (*delighted*). Rentsch and Steel (1992) reported that this instrument had acceptable reliability ($\alpha = .81$) and a high degree of convergent validity with two other scales of job satisfaction: the Job Descriptive Index (P. C. Smith et al., 1969) and the Minnesota Satisfaction Questionnaire (Weiss et al., 1967). The Cronbach's alpha has ranged from .79 to .85 in recent research (Chang et al., 2015; Mullen et al., 2018, 2019). Scores on this scale indicated good reliability with this sample ($\alpha = .83$).

Data Analysis

Following the data collection process, the data were entered into a database and analyzed using SPSS (Version 25). Prior to conducting the proposed analyses, we performed preliminary analyses to ensure no violation of the assumptions of each test. We used Kolmogorov-Smirnov and Shapiro-Wilk tests to determine the normality of the data with respect to EBPAS and ICS total scores. Although both analyses were significant for the EBPAS scores, visual examination of the distribution of scores indicated normality. Because of the influence of sample size on the Kolmogorov-Smirnov and

the Shapiro-Wilk tests, and the robustness of one-way analysis of variance (ANOVA), we decided to perform these analyses. Skewness and kurtosis statistics were then examined among the variables used in the bivariate correlation and multiple linear regression analyses. Average caseload and percentage of time spent in training indicated significant kurtosis based on a standard error of ± 3 . The Cook's distance and leverage statistics indicated no values above 1 or .5, respectively, indicating no outliers. Thus, bivariate correlation and multiple linear regression analyses were performed. After an initial examination of the data, we applied several analyses, including ANOVA, bivariate correlations, and standard multiple linear regression, in order to answer our research questions.

Results

Research Question 1

Table 2 presents a summary of the descriptive data. One-way ANOVAs were conducted to determine whether participants' scores on the EBPAS or ICS differed on the basis of education level, licensure status, institution type, or institution size. Participants' EBPAS scores did not differ significantly according to demographic variables. Furthermore, participants' total ICS scores were not significantly different based on their licensure status, education level, or institution size. However, participants' total ICS scores did produce a statistically significant difference based on their institution type, $F(3, 193) = 2.66, p = .049, \eta^2 = .04$. The institution types of the participants included 4-year public university, private university, public college, and private college. However, a Tukey post hoc analysis revealed no statically significant differences among groups based on a $p < .05$.

TABLE 2

Descriptive Statistics for the Evidence-Based Practice Attitude Scale (EBPAS) and Implementation Climate Scale (ICS)

Measure	<i>M</i>	<i>SD</i>	<i>α</i>
EBPAS total score	2.70	0.49	.81
Requirements	7.83	3.14	.94
Appeal	12.16	2.39	.73
Openness	9.26	2.59	.74
Divergence	11.27	2.68	.62
ICS total score	1.77	0.69	.92
Focus on EBP	7.01	3.17	.95
Education Support for EBP	4.74	3.19	.83
Recognition for EBP	5.04	2.85	.82
Rewards for EBP	0.61	1.25	.57
Selection for EBP	5.55	3.66	.94
Selection for Openness	8.81	2.65	.91

Note. EBP = Evidence-Based Practice.

Research Question 2

To investigate the relationships between the EBPAS total scores, ICS total scores, TOPS-R subscale scores, and JSQ scores, we calculated Pearson correlation coefficients as shown in Table 3. Participants' scores on the TOPS-R Feminist and Multicultural subscales produced a positive and statically significant relationship. Similarly, participants' scores on the JSQ and ICS produced a positive and statistically significant relationship. Finally, participants' scores on TOPS-R Cognitive and Psychodynamic subscales produced a statistically significant negative relationship.

Research Question 3

We applied a multiple linear regression to the outcome variable of EBPAS total scores with the predictor variables of ICS total scores, theoretical orientation using the TOPS-R subscale scores, average caseload, percentage of time spent training, and years of experience. After conducting preliminary analyses, we found no violations of the assumptions of normality, linearity, multicollinearity, and homoscedasticity. The linear composite of independent variables predicted 17% ($R = .41$, $R^2 = .17$) of the variance in EBPAS scores, $F(11, 146) = 2.64$, $p < .01$. The ICS scores ($\beta = .25$, $p < .05$) and percentage of time spent training ($\beta = -.19$, $p < .05$) added significantly to the prediction. Regression coefficients and standard errors can be found in Table 4.

Discussion

Our findings contribute to the literature base regarding the growing emphasis on EBP in college counseling and the mental health field at large. In

TABLE 3
Correlations Between EBPAS, ICS, TOPS-R Subscale, and JSQ Scores

Measure	1	2	3	4	5	6	7	8	9	10
1. EBPAS	—									
2. ICS	.29**	—								
3. Psychodynamic	-.11	.03	—							
4. Humanistic	-.01	.08	.21**	—						
5. Cognitive	.18*	.26**	-.32**	-.19**	—					
6. Family Systems	.06	.13	.20**	.13	.07	—				
7. Feminist	.06	.04	.22**	.30**	-.18**	.25**	—			
8. Multicultural	.11	.16*	.07	.18**	.12	.25**	.46**	—		
9. Postmodern	.01	.11	-.09	.09	.28**	.28**	.57	.21**	—	
10. JSQ	.00	.35**	.05	.13	.03	.07	-.09	.61**	.15*	—

Note. Measures 3 through 9 are subscales of the Theoretical Orientation Profile Scale–Revised (TOPS-R). EBPAS = Evidence-Based Practice Attitude Scale; ICS = Implementation Climate Scale; Psychodynamic = Psychodynamic/Psychoanalytic; Humanistic = Humanistic/Existential; Cognitive = Cognitive/Behavioral; Postmodern = Postmodern/Solution Focused; JSQ = Job Satisfaction Questionnaire. * $p < .05$. ** $p < .001$.

TABLE 4
Summary of Multiple Regression Model

Variable	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
ICS total score	.14	.05	.25	3.03*	.03
Percentage of time spent training	-.17	.08	-.19	-2.32*	.02
Average caseload	.05	.03	.14	1.77	.08
Years of experience	-.06	.06	-.09	-1.12	.26
TOPS-R Psychodynamic	-.29	.19	-.13	-1.49	.14
TOPS-R Humanistic	-.04	.20	-.02	-0.02	.83
TOPS-R Cognitive	-.01	.23	-.01	-0.06	.96
TOPS-R Family Systems	.15	.21	.06	0.73	.47
TOPS-R Feminist	-.12	.21	-.05	-0.58	.56
TOPS-R Multicultural	.30	.22	.12	1.35	.18
TOPS-R Postmodern	.07	.19	.03	0.35	.72

Note. ICS = Implementation Climate Scale; TOPS-R = Theoretical Orientation Profile Scale–Revised; Psychodynamic = Psychodynamic/Psychoanalytic; Humanistic = Humanistic/Existential; Cognitive = Cognitive/Behavioral; Postmodern = Postmodern/Solution Focused.

* $p < .05$.

our sample, ICS scores served as a positive predictor of college counselors' attitudes toward adopting EBP based on total EBPAS scores. This finding suggests that college counselors' attitudes regarding the use of EBP are related to their perception of whether their college counseling center facilitates an environment that supports the use of EBP.

On the basis of this finding, college counseling centers could benefit from intentionally providing interventions that support the use of EBP, such as providing training on EBP. Specifically, such training could focus on how EBP can be adapted in college counseling centers to meet students' needs. Another consideration, based on our findings, is that there may be a need for college counseling centers to consider how they approach counseling session limits, as EBPs are often designed to be time limited. Providing an institutional environment conducive to such practices may encourage their use in the context of college counseling.

Considering that college counseling center staff are stretched to meet their students' growing mental health needs, burnout and counselor job satisfaction must be addressed to retain clinicians. Given the relationship between use of EBP and counselor burnout (Wilkinson et al., 2017), working in an environment that supports use of EBPs may lead to their use by counselors, thus resulting in lower rates of burnout. Our findings of a small, positive relationship between total EBPAS scores and ICS total scores supports the idea that when workplaces provide support for use of EBP, attitudes toward using such practices may improve or, conversely, attitudes toward using EBP may lead to increased support for their use from workplace environments. Although we did not explore these variables' relationship to burnout, such factors may reduce burnout based on previous findings. Further research is needed to identify if the actual implementation of EBP reduces burnout and whether the ICS, EBPAS, and burnout are related.

Regarding job satisfaction, our findings indicated a medium, positive correlation between counselors' job satisfaction and their ICS scores. These findings bring into question (a) whether the institutional support of EBP as demonstrated in higher ICS scores was related to counselors' levels of overall perceived support from their college counseling centers and (b) how perceived support correlates with higher job satisfaction. It would be beneficial to explore further which specific aspects of institutional support contribute to higher rates of job satisfaction and how certain aspects of support could potentially increase clinician retention. Williams and Beidas (2018) found that institution size, institutional attitudes toward EBP, and higher levels of proficiency in the culture of EBP implementation led to lower levels of clinician turnover. They emphasized that institutions that develop a culture around EBP that aligns with the overarching values and attitudes of the institution's clinicians may increase clinician retention. When the decision is made to implement EBP based on the institutional value of improving client well-being and clinician competence, clinicians using EBP will feel a greater sense of job satisfaction. Therefore, university counseling centers should spend time defining their institutional values before implementing EBP protocols. This way, the university counseling centers' goals and values can inform the necessity to implement EBPs.

The multiple linear regression findings of our study also indicated that the percentage of time spent training was a negative predictor of attitudes toward EBP. This was surprising, given that the ICS includes a question regarding the provision of training. Furthermore, researchers have found that exposure to training has been positively associated with more favorable attitudes toward EBP (Lim et al., 2012; B. D. Smith, 2013). One possible explanation for this finding is the reality that many college counselors utilize an integrative approach focused on common factors (Cooper et al., 2008) and practice-based evidence (Barkham & Mellor-Clark, 2003; Clement, 2013; Nevo & Slonim-Nevo, 2011; Westfall et al., 2007). The common factors approach and the practice-based evidence movement have developed as an alternative to the EBP movement, emphasizing the importance of the counseling relationship and emphasizing effectiveness research as a response to the critique that EBP research overemphasizes efficacy-based research (Clement, 2013). The many roles that college counselors serve on campus (e.g., student advocate, outreach) and their utilization of diverse treatment perspectives could also contribute to developing a more integrative approach rather than a unitary approach built around EBP. Integrating a variety of approaches could diminish a counselor's attitude toward EBP in an effort to focus more on holistic practices and matching interventions based on common factors in therapy rather than specific EBPs.

A counselor's focus on an integrative or holistic approach may contribute to interpreting the results in our study, indicating that college counselors that were more psychodynamic (TOPS-R subscale) had a negative correlation with cognitive-behavioral approaches. Many psychodynamic approaches

ascribe to a more holistic and common factors perspective as opposed to EBP. These findings would suggest that if training is provided to develop a climate conducive to EBP, then the focus should be on the effectiveness and feasibility of integrating EBP in a college counseling setting. By providing such training, counselors could explore how empirically supported treatments could be integrated into their practice, rather than replace the ability of counselors to match their interventions to the needs of clients. University counseling centers would benefit from providing continuing education and professional development opportunities for its clinicians based on EBP protocols that have effective research conducted with university counseling center populations.

Findings from previous studies support the relationship between organizational size and the clinicians' attitudes toward EBP (Beidas et al., 2017). Specifically, the smaller organizational size was indicated as having a positive relationship with the utility of cognitive-behavioral modalities. Our study results indicated that institution type (e.g., 4-year public university, private university, public college, private college) had a significant impact on the level of ICS scores. However, the post hoc comparison did not indicate a significant difference between groups. This finding suggests that further research may be needed to explore the impact that institutional context may have on the extent to which an institution may prioritize and value the implementation of EBP. Given that EBP protocols typically require training and outcome monitoring to ensure treatment fidelity, it would be valuable to examine further whether specific resources (e.g., grants, graduate students, faculty researchers) could contribute to an institution's perceived ability to use EBP.

Limitations

There are several limitations to note when considering the generalizability of the findings. The study sample was homogeneous, and further research would benefit from including more diverse participants regarding racial/ethnic identity, gender identity, and sexual orientation. Furthermore, recruitment of participants for this study could be prone to response bias in that individuals who are interested in EBP may be more likely to have completed the survey, or counselors could have responded based on the desired perception rather than their actual lived experience. Additionally, given that this research was based on quantitative methodology, it could be beneficial to investigate the qualitative and subjective perception of participants regarding their attitudes toward EBP. Finally, the multiple linear regression analysis does not address mediation effects in the model that could be present.

Future Research Directions

Despite the limitations of this study, the findings contribute to the overall understanding of college counselors' attitudes toward EBP. Future research efforts would benefit from further examining the components that contribute

to developing an institutional climate conducive to applying EBP and addressing potential mediation effects that occur among variables that predict attitudes toward EBP. Researchers could also benefit from further exploring how EBPs are applied in college counseling settings beyond counselors' attitudes toward EBP. This could be done through mixed-methods designs that incorporate qualitative data to provide clinicians with the opportunity to articulate how EBP is utilized in a college counseling center. Finally, beyond counselors' attitudes toward EBP, it would be beneficial to explore the barriers that prevent EBP from being applied in college counseling settings more specifically.

Conclusion

EBP is a significant force in the current landscape of mental health treatment and has been touted as a potential solution to the increased need for mental health services. One area of mental health that has seen exponential growth in need for services is college counseling. Using a diverse sample of college counselors, findings from this study support the idea that institutional support and time spent training predict attitudes toward EBP. Based on this finding, college counseling centers should consider the resources that can encourage the use of EBPs among their counselors. Further studies can focus on exploring how EBP can be utilized in the context of college counseling centers and how other models of empirically supported practices (e.g., common factors or practice-based evidence) are used to inform treatment.

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