

# THE ROLE OF INDIVIDUAL CHARACTERISTICS, KNOWLEDGE, AND ATTITUDES TOWARD THE USE OF EVIDENCE-BASED PRACTICES AMONG MENTAL HEALTH PROVIDERS IN PUERTO RICO\*

## EL ROL DE LAS CARACTERÍSTICAS INDIVIDUALES, CONOCIMIENTOS Y ACTITUDES HACIA EL USO DE PRÁCTICAS BASADAS EN EVIDENCIA ENTRE LOS PROVEEDORES DE SALUD MENTAL EN PUERTO RICO

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### ABSTRACT

This study evaluates how Evidence Based-Practice (EBP) knowledge, attitudes, and individual differences could predict EBP behaviors in a sample of health providers. A cross-sectional design was used to collect data using a sample of convenience of 132 mental health providers in Puerto Rico (24 – 80 years old). An evidence-based professional practice scale (EBPP-S) and a socio-demographic form were utilized. Knowledge of EBP, provider's age, and holding a doctoral degree were the strongest predictors of EBP behaviors. The educational and health ramifications of the findings are discussed.

KEY WORDS: Evidence based-practice, knowledge, attitudes, mental health, and health professionals

### RESUMEN

Este estudio evalúa cómo el conocimiento y las actitudes de las prácticas basadas en la evidencia (PBE) y las diferencias individuales entre proveedores/as de salud mental predicen las conductas asociadas a las PBE. Con un diseño transversal, recopilamos datos de una muestra por conveniencia de 132 proveedores/as de salud mental que viven en Puerto Rico (24 – 80 años). Utilizamos la Escala para la Práctica Profesional Basada en la Evidencia (E-PPBE) y una hoja de datos socio- demográficos. Los resultados sugieren que el conocimiento de las PBE, la edad del proveedor/a y el obtener al menos un grado doctoral fueron los mejores predictores de las conductas asociadas a las PBE. En el artículo discutiremos las implicaciones educativas y para la salud de los hallazgos.

PALABRAS CLAVE: Prácticas basadas en la evidencia, conocimiento, actitudes, salud mental y profesionales de la salud.

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Evidence-based practice (EBP) is a movement that has been adopted in different countries and is endorsed by a number of disciplines, such as prevention research (Lyles, Crepaz, Herbst, & Kay, 2006; Pérez-Jiménez, 2012), developmental science (Spiel, 2009), and psychology (APA Presidential Task Force on Evidence-Based Practice, 2006). EBP is more than a tendency, given the demand for accountability, especially with mental health services. While organizations, such as the Institute of Medicine and the American Psychological Association, emphasize the importance of EBPs for improving the quality of health care, there is still a need to assess the extent of its use as well as the process that would facilitate implementation (Schuster, McGlynn, & Brook, 2005). Also, there is a demand that trained professionals utilize and integrate the best available research according to their clients' or patients' needs, values, goals and context (APA Presidential Task Force on Evidence-Based Practice, 2006).

There is a link between Evidence Based Treatments (EBTs) and EBPs, yet these are not the same. EBPs utilize EBTs for its implementation; however, there is limited research on the use of EBTs with Latino population. In response to the scarcity of information, researchers are evaluating the efficacy and effectiveness of interventions, as well as mental health services with Latinos, with an emphasis on exploring cultural patterns (Vega & Lopez, 2001) and some have proposed culturally adapting interventions including variables such as culture, context, and language (Bernal, Jiménez-Chafey, & Domenech Rodríguez, 2009). When culture, context and language are ignored in therapeutic process with Latino clients, it often lead to low therapeutic engagement and high dropouts (Alegría et al., 2013; Robbins et al., 2006; Vega et al., 2007). One recommendation to encourage the use of EBPs is to utilize treatments with probable or possible efficacy when treating

Latino clients (Huey & Polo, 2008). Regarding cultural adaptations of interventions, five meta-analyses have been conducted with medium to high effects in support of the adapted intervention (Benish, Quintana, & Wampold, 2011; Griner & Smith, 2006; Huey & Polo, 2008; Smith, Rodríguez, & Bernal, 2011; van Loon, van Schaik, Dekker, & Beekman, 2013). The effect sizes ranged from .38 to 1.06 suggesting that cultural adaptation make an important contribution to positive outcomes.

In Puerto Rico, Martínez-Taboas established a presidential task force during his tenure as president of the Puerto Rican Psychological Association (Martínez-Taboas, 2008). Since then, different mental health and prevention professionals have made important steps towards embracing EBPs. Recently, a first book on EBPs was published in Puerto Rico (Martínez-Taboas & Quintero, 2012). Emphasis was given to working with Hispanic populations suffering from major depression disorder, post-traumatic stress disorder, as well as EBP approaches to working with women sexual abuse, prevention, among others. Also, several articles have been published on EBPs (e.g., APPR Comité de Asuntos de la Comunidad LGBT, 2014; Bernal & Rodríguez-Soto, 2012; Cruz-Bermúdez, 2013; Rivera-Medina & Bernal, 2008). Additionally, researchers at the University of Puerto Rico, Medical Science Campus' Center for Evaluation and Socio-medical Research have developed a digital archive or Evidence-Based prevention programs and practices (Center for Evaluation and Sociomedical Research, 2013).

As Spiel and Strohmeier (2012) note: "there is a growing disappointment on the part of researchers, policy makers, and general public with the slow and incomplete uptake of research findings in applied settings" (p. 151). For this reason, investigators have examined the facilitators and barriers associated with the

implementation of EBPs and the process of adoption of new practices. A first step to bridge research and practice is to understand providers' knowledge and attitudes in adopting EBPs. The study of knowledge, attitudes, or the actual application of EBPs is an avenue to improve the dissemination of EBPs.

### Knowledge

There are a number of barriers that affect the implementation of EBPs. Providers' knowledge of EBPs is considered a potential barrier, specially the awareness and understanding of its characteristics (Higa & Chorpita, 2005). In psychology, clinical graduate students (Luebbe, Radcliffe, Callands, Green, & Thorn, 2007), clinical/counseling professionals (Wilson, Armoutiev, Yakunina, & Werth, 2009) and community mental health providers (DiMeo, Moore, & Lichtenstein, 2012) still believe that EBPs are the same as EBTs. EBP integrates three aspects: 1) the best available evidence, 2) the expertise of the provider, and 3) the client's preferences, culture, values and worldviews. Only 3.7% of clinical graduate students can identify the three components of evidence-based practice in psychology (EBPP), while 12.8% mentioned only two components (Luebbe et al., 2007). Also, graduate students do not consider research to be useful when deciding between treatments (e.g., they reported a low use of Randomized Controlled Trials and systematic reviews to guide interventions) (Luebbe et al., 2007). In a study based on interviews, psychologists were not clear about what EBPP meant (Wilson et al., 2009). Finally, a group of nurses reported not having a basic knowledge of EBPs (Tacia, Biskupski, Pheley, & Lehto, 2015).

A second potential barrier is the overemphasis in the professional's clinical judgment. While occupational therapy students agreed that EBP is the integration of experience and clinical judgment with

evidence (Stronge & Cahill, 2012), psychologists in the private practice give more credit to their own experience than to research evidence in making decisions (Stewart, Stirman, & Chambless, 2012). Another barrier associated with knowledge is the lack of adequate training and up-to-date education or, as Higa and Chorpita (2005) point out, the practical or "how-to" details. This practical component is related to getting and understanding information from books, journals, and other media and its translation into practice. In a group of nurses, 59.8% reported that the reasons for not implementing EBPs were the lack of knowledge about how to understand and evaluate a research paper (Hart, Eaton, & Buckner, 2008). Also, psychologists in private practice report not reading journals regularly, especially because they are not relevant to their personal preferences or clinical needs (Stewart, Stirman, et al., 2012). However, in a sample of community child mental health practitioners, knowledge of EBP did not vary as a function of licensure status, but providers with an advanced degree and working in an outpatient clinic had higher EBP knowledge (Nakamura, Higa-McMillan, Okamura, & Shimabukuro, 2011).

### Attitudes

Although knowledge can be a precursor of attitudes, most of the research has evaluated the role of attitudes towards EBPs (Aarons, 2004, 2005; Aarons, Cafri, Lugo, & Sawitzky, 2012; Nelson & Steele, 2007; Palmer, 2010; Stahmer & Aarons, 2009). Attitudes can act as a barrier or as a facilitator. Study among physicians and psychologists, 32% reported that attitudes can be a barrier, while 9% considered them a facilitator for the implementation of EBPs (Pagoto et al., 2007). In interviews with 18 professionals, at least three clinical and three counseling psychologists reported answers that were classified into one of these categories: 1) positive attitudes towards EBPP, 2) mixed

reactions, and 3) an understanding of the importance of evidence (Wilson et al., 2009). These findings suggested that professionals recognized EBPP's importance, but there were mixed thoughts or behaviors regarding them.

Providers' characteristics can influence how attitudes are manifested. Some characteristics (i.e., intern status, working in less bureaucratic organizations, and in programs with written policies regarding interventions) have been related to more positive attitudes in the use of EBPs (Aarons, 2004). For example, students who aspire to a research career scored higher in good experiences and favorable attitudes toward EBP than those more oriented to clinical practice (Luebbe et al., 2007). Attitudes can vary as a function of theoretical orientation (Nelson & Steele, 2007), with more positive for cognitive-behavioral (CBT) and eclectic than psychodynamic therapies (Stewart & Chambless, 2007). Practitioners in the private practice that subscribed to psychodynamic, eclectic, humanistic, and others, more than CBT, presented objections to EBTs (Stewart, Chambless, & Baron, 2012). Yet, in a different study, more than half of the sample did not have a primary theoretical orientation (Nakamura et al., 2011).

#### Present study

The association between knowledge and attitudes show mixed results. One of the first studies to explore the link between EBP knowledge and attitudes was not significant (Nakamura et al., 2011). In a sample of field instructors for social workers, attitudes become more negative when knowledge increased (Leathers & Strand, 2013). While results have been mixed regarding the association between knowledge and attitudes, there is still a need to consider individual differences related to both. With a sample of mental health providers, our team

developed a measure to evaluate knowledge, attitudes and behaviors associated to EBP (Bernal & Rodríguez-Soto, 2010). Our preliminary results suggested that providers had favorable attitudes, and high knowledge levels regarding EBPs (Bernal & Rodríguez-Soto, 2012).

This study evaluates the degree to which EBP knowledge, attitudes, and individual differences could predict self-reports of actual involvement in EBPs. We expected that mental health providers' characteristics (age, education and EBP knowledge, and attitudes) would help explain EBP behaviors. More specifically, we expected that providers with lower age, higher education, knowledge and favorable attitudes would report higher scores on EBP behaviors.

## METHOD

### Participants

Data came from a prior data set used to develop an Evidence-based Professional Practice Scale (EBPP-S; Bernal & Rodríguez-Soto, 2010). Participants were recruited by availability from evidence-based practice's workshops with mental health providers. Sample consisted of 132 professionals and graduate students (95 female and 37 male) between 24 – 80 years old ( $M = 43.87$ ,  $SD = 11.52$ ) (see Table 1). About 47.66% of the respondents were employed as full-time psychologists, 18.75% professor and psychologists, 14.06% social workers, and 10.16% graduate students. Participants were Puerto Ricans (94.40%), Dominicans (1.90%), or from other Latino/a group (3.70%). Most of them had a doctorate/MD (59.82%).

TABLE 1.  
Mental health providers' socio-demographic data

Variable	N = 132	%
Sex		
Women	95	72.00%
Men	37	28.00%
Nationality (n = 108)		
Puerto Rican	102	94.40%
Dominican	2	1.90%
Other	4	3.70%
Age (n = 131)		
21 – 30	19	14.51%
31 – 40	38	29.01%
41 – 50	34	25.95%
51 - 60	30	22.90%
61 or more	10	7.63%
Education level (n = 112)		
College graduate or less	9	8.04%
Master's degree	36	32.14%
Ph.D/MD	67	59.82%
Main employment or occupation (n = 128)		
Full-time psychologists	61	47.66%
Professor and psychologist	24	18.75%
Social workers	18	14.06%
Graduate students	13	10.16%
Other	12	9.38%

Measures

Socio-demographics questionnaire. Included demographical information, such as age, sex, highest education level, professional area, and type of services provided, among others.

Evidence-based Professional Practice Scale (EBPP-S; Bernal & Rodríguez-Soto, 2010). This 17-items scale was design as a general measure to be used with different health professionals. The EBPP-S evaluates three dimensions: knowledge ( $\alpha = .90$ ), attitudes ( $\alpha = .89$ ), and behaviors ( $\alpha = .83$ ) toward the use of evidence-based practice. Items are rated in a 1 (*Total Disagreement*) to 5 (*Total Agreement*) Likert-type format. The knowledge sub-scale had four items (e.g., “The EBPP considers the best available research”). The attitudes sub-scale had six items (e.g., “I am familiarized with the EBPP”). The behaviors sub-scale had seven items (e.g., “I use EBPP”). The internal consistency of the total scale was moderately

high ( $\alpha = .88$ ). The EBPP-S behavior sub-scale served as the outcome measure.

Procedure

The Institutional Review Board at University of Puerto Rico, Río Piedras Campus approved this study. The investigators read the consent forms in a group format prior to an evidence based practice workshop. If interested, providers signed the consent forms and completed the measures.

Design and data analytic strategy

This study consisted of a cross-sectional and predictive research design using more than two predictors and one outcome variable (EBPP behaviors) (Mertens, 2014). The objective is not to provide a cause-effect relationship, but to evaluate their relationship.

Descriptive statistics were employed for sample description, using mean and

standard deviations in continuous variables and frequencies and percent in categorical variables, such as sex and professions. Correlations among variables, such as knowledge, attitudes, behaviors and demographic variables were conducted. For the main hypotheses, multiple regression analyses were conducted to consider the influence of the predictive variables (i.e., knowledge, attitudes, and demographics) on the criterion variable (behaviors). An "Enter" method was utilized in the multiple regressions. We selected for presentation the model whose predictive variables were associated with the optimal amount of explained variance and conceptual significance. Results are presented in a hierarchical format to help in visualizing the change in regression coefficients and

explained variance ( $R^2$ ) with the inclusion of each new variable in the model.

## RESULTS

Knowledge of EBP, and attitudes towards EBP. Using the knowledge subscale of the EBPP-S, mental health providers reported high knowledge levels about EBPs ( $M = 16.76$ ,  $SD = 3.18$ ). Further, a  $t$ -test analysis did not reveal any significant differences in scores by gender and education. With the attitudes subscale of the EBPP-S, mental health providers reported highly positive attitudes towards implementing EBPs ( $M = 26.4$ ,  $SD = 3.70$ ). Further  $t$ -tests did not reveal any significant difference in scores by gender and education (see Table 2).

TABLE 2.

T- tests comparing educational attainment and EBPP-S components

Variable	Less than a Ph.D./MD ( $n = 45$ )		PhD/MD or more ( $n = 67$ )		$t(110)$	$p$	95% CI
	$M$	$SD$	$M$	$SD$			
Knowledge	16.42	3.41	17.24	2.99	-1.34	ns	[-2.03, .39]
Attitudes	26.00	3.66	26.61	3.77	-.85	ns	[-2.04, .82]
Behaviors	18.93	6.83	24.28	5.19	-4.70	.00	[-7.61, -3.10]

Behaviors. Using the Behavior subscale of the EBPP-S, mental health providers endorsed an average number of behaviors towards implementing EBPs ( $M = 21.92$ ,  $SD = 6.40$ ).  $T$ -tests did not reveal any significant difference in scores by gender; however, there were significant differences in scores between providers with higher (Ph.D./M.D or higher degree) and lower levels of education,  $t(110) = -4.70$ ,  $p < .001$ .

Do knowledge, attitudes, and individual differences predict EBP behaviors?

A two-way between-groups ANOVA was performed to examine the effects of age and education on EBP behaviors. There was not a statistically significant interaction effect between age and education ( $p = .66$ ). Main effects analysis showed that younger providers were adopting significantly more EBP behaviors than older providers [ $F(1,$

$107) = 7.30$ ,  $p = .008$ ]. Effect size was small ( $\eta^2 = .064$ ). Providers with a least a Ph.D. were endorsing more EBP behaviors than those with less than a Ph.D.,  $F(1, 107) = 27.74$ ,  $p < .001$ . Effect size was medium ( $\eta^2 = .210$ ).

Correlations. Correlations between age, education, knowledge of, attitudes towards and EBPP behaviors were evaluated. Results revealed negative correlations for behaviors associated to EBPP and age ( $r = -.203$ ,  $p = .02$ ), but there were no significant correlations between age and knowledge ( $r = -.072$ ,  $p = .42$ ) or age and attitudes ( $r = -.037$ ,  $p = .68$ ). There were positive correlations between behaviors associated to EBPP and knowledge ( $r = .523$ ,  $p < .001$ ), between behaviors and attitudes ( $r = .406$ ,  $p < .001$ ) and behaviors and gender ( $\rho = -.184$ ,  $p < .05$ ).

Regression model. Providers who were of a higher educational level, with higher EBP knowledge scores, and who were younger reported higher involvement in EBP behaviors,  $F(4, 106) = 17.513, p < .001$  (see Table 3). The model accounted for about 40% of the variance in EBP behaviors. Higher level of educational attainment (i.e., doctoral degree) ( $\beta = .38, p < .001$ ) and

knowledge ( $\beta = .31, p < .01$ ) were the best predictors of EBP behaviors in the model. Thus, even when attitudes toward EBPs were significantly correlated with behaviors, the latter did not make a significant independent variance contribution ( $p = .091$ ) to the dependent variable when educational level, age and knowledge were included in the regression model.

TABLE 3.  
Hierarchical multiple regression analysis of predictors of EBPP behaviors

Variable	EBPP Behaviors	B	SE	$\beta$	t	p	R <sup>2</sup>
Step 1	Age	-.11	.05	-.20	-2.37	.020	--
	Education	5.86	1.13	.45	5.21	.000	.22
Step 2	Age	-.10	.04	-.18	-2.33	.022	--
	Education	5.01	1.02	.38	4.93	.000	--
Step 3	EBPP knowledge	.86	.16	.41	5.35	.000	.38
	Age	-.10	.04	-.19	-2.44	.016	--
	Education	5.02	1.01	.38	4.98	.000	--
	EBPP knowledge	.65	.20	.31	3.21	.002	--
	EBPP attitudes	.29	.17	.16	1.71	.091	.40

Note: Age is a continuous variable. Education is a dichotomous variable divided in providers with PhD/MD or without PhD/MD. EBPP = Evidence-Based Professional Practice  
 Step 1:  $F(2, 108) = 14.901, p < .01, R^2\Delta = .22$   
 Step 2:  $F(3, 107) = 21.991, p < .01, R^2\Delta = .38$   
 Step 3:  $F(4, 106) = 17.513, p < .01, R^2\Delta = .40$   
 Adjusted R<sup>2</sup> = .38

DISCUSSION

This study explored the relationship between knowledge, attitudes, and individual differences on EBP behaviors of mental health professionals in Puerto Rico. Our intent was to explore links between the EBP behaviors of mental health professionals to important aspects of practice such as knowledge of EBP and provider characteristics such age and academic degree (i.e., younger age and having at least a PhD/MD degree). As hypothesized, the younger the mental health provider the more likely they were to endorse using EBPs in their practice. Similarly those with a more recent doctoral degree were more likely to endorse engaging in EBP behaviors. This phenomenon is not similar in nurses where those with more years of experience reported more use of EBPs (D’Souza, Renu, Noronha, & Shakman, 2014).

While attitudes related to EBPs have been widely investigated (Aarons, 2004, 2005; Aarons, Cafri, et al., 2012; Nelson & Steele, 2007), it is clear that attitudes toward adoption of EBP vary a great deal for individuals (i.e., requirements, appeal, openness, divergence) (Aarons, 2004) and organizations (i.e., limitations, feedback, monitoring, organizational support, burden or job security) (Aarons, Cafri, et al., 2012). Our findings show that when age, EBP knowledge, and academic degree are considered, attitudes do not necessarily predict EBP behaviors. This finding may be related to characteristics of our sample that included younger professionals. Attitudes toward any behavior are shaped by experience, knowledge, and beliefs (Fishbein & Ajzen, 1975). It may be that older professionals who have not had the exposure to EBPs are tied to the models of intervention

learned in their training program, while the younger professionals who graduated more recently may have had exposure to EBPs in their training and/or may be less wedded to theoretical positions that dismiss new advances in professional practice.

The EBP movement is a relatively new phenomenon in Puerto Rico. At about the time of this study, EBPs were introduced by means of the CDC's *Compendium of Evidence-based interventions (EBIs) and Best Practices for HIV* (Centers for Disease Control and Prevention, 2013), and SAMSHA *National Registry of Evidence Based Programs and Interventions* (Substance Abuse and Mental Health Services Administration & U.S. Department of Health and Human Services, 2010). The rise of EBPs in Puerto Rican psychology was also a hallmark of the presidential initiative of Alfonso Martínez-Taboas' presidential Task Force of Evidence Based Psychological Practices (Martínez-Taboas, 2008). The EBP Task Force was charged with promoting EBPs and engaged in a host of activities that included presentations, seminars, workshops, and publications on EBPs in psychology (Martínez-Taboas & Bernal, 2014; Martínez-Taboas & Quintero, 2012). Since then, courses have been developed at different universities in Puerto Rico and there is a growing interest in practicing EBPs. In fact, there is now an archive of EBP prevention interventions in Puerto Rico (Center for Evaluation and Sociomedical Research, 2013). While the EBP movement in Puerto Rico has made important advances in promoting EBPs among mental health providers, the implementation in schools, hospitals, and clinics has not been homogeneous.

Given the increased activity and exposure of EBTs at this time, it may well be that attitudes toward EBPs have shifted in the theoretical direction of attitudes predicting behaviors. One would expect that greater exposure to EBPs, greater experience in evidence based interventions and treatments

in academic and clinical settings, and the existence of a local archive with tested interventions in Puerto Rico, would have an impact on forming beliefs that then shape attitudes. Thus, it may be an opportune time to test the hypothesis that those professionals with positive attitudes about EBPs will predict greater reports of engaging in EBP practices, while those with less positive attitudes will not engage in EBP behaviors.

Challenges in the implementation of EBPs may be a result of a combination of factors. For example, younger mental health professionals with PhD/MD and with a working knowledge of EBTs are positively inclined to endorse engaging in EBP behaviors. Contrary to our expectation, attitudes were not a good predictor of EBP behaviors, when knowledge, age and educational attainment are considered in the model. Given that EBPs came onto the scene relatively recent in Puerto Rico, this may explain why age and educational attainment are so important at this time.

#### Recommendations and implications

Taking into consideration the characteristics of providers that influence EBP behaviors in our sample can serve as a venue to explore successful implementation and dissemination strategies. Further research is needed to assess mental health provider's diversity, including their practice status, theoretical orientation, years of experience, job tenure, personal values or product experience in order to better attune implementation strategies. Other personal factors to be explored are providers intentions and self-efficacy in using EBPs (Aarons, 2005), and their normative and subjective norms (Bonetti et al., 2005).

Mental health providers operate within a context that impacts their capacity to help others or serve clients. For EBP to be implemented, an infrastructure in place is needed to support the practitioner (Aarons,



Sommerfeld, & Walrath-Greene, 2009; Aarons, Glisson, et al., 2012). Thus, it is critical to examine how the organizational context (e.g., culture and climate of the organization) supports EBPs. Public or private organizations shared their own values, norms, beliefs, and ways of interpreting EBPs and its methods. Such norms and values may include the organizational readiness for EBPs that is associated with implementation science. Given that EBP is a state of the art in clinical science, there need to be an organizational readiness for change that includes a commitment to providing the best available intervention along with other factors such as member initiation, persistence, and cooperative behaviors (Weiner, 2009). Considering implementation science to understand mental health organizations' readiness for EBPs will be an important step forward for research area in Puerto Rico.

Other organizational contexts to consider are training programs for mental health providers. Training programs are embedded in an organization that also shares its own values, beliefs and norms about EBPs and are transmitted to their staff, trainees, and students. To advance mental health practice, these trainings should provide up-to-date knowledge. After all, EBPs offer an opportunity to provide clients the best practices in our area of expertise.

This study has several limitations. First, the characteristics of the sample limit the study as it was obtained from providers who attended a Puerto Rican Psychological Convention that highlighted the efforts in EBPs. It is possible that the professionals and students who participated in the study were more open to learn about EBPs. Given the use of a convenience sample, psychologists were over represented and do not represent the totality of practicing mental health providers in Puerto Rico. Furthermore, another part of the sample was drawn from mental health providers participating in EBT workshops offered at the Puerto Rico Mental

Health and Substance Abuse Administration. Finally, because participants were invited to participate in the study while at meetings that highlighted EBTs or EBPs, there may have been a social desirability factor operating in favor of EBPs that may have biased the results. Nevertheless, the findings provide preliminary data on attitudes, knowledge, and behaviors of mental health providers that can serve as a comparison point to further studies that use the EBPP-S.

## CONCLUSIONS

Evidence-based practice is an approach that integrates the best available evidence with the expertise of the provider and the client's preferences, culture, values and worldviews. This study evaluated how EBP knowledge, attitudes, and individual differences could predict EBP behaviors in mental health providers. Despite the limitations of the study, those providers that were younger, held a doctoral degree and had more knowledge of EBP were more likely to report higher engagement in the use of EBPs. One implication of these findings is that implementation efforts are likely to be more fruitful if providers with these characteristics are approached early and used as resources to train other staff. Special attention and intensive training efforts may need to be designed for staff less prone to engage in EBP behaviors. Further research will be needed to explore the factors that predict the use of EBPs among mental health providers.

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