


## Original Article

# Evidence-Based Practice Culture and Mentorship Predict EBP Implementation, Nurse Job Satisfaction, and Intent to Stay: Support for the ARCC<sup>®</sup> Model

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### Key words

evidence-based practice, nurses, ARCC<sup>®</sup> Model, EBP culture, Mentorship, job satisfaction, casual modeling, structural modeling equation

### ABSTRACT

**Background:** The Advancing Research and Clinical practice through close Collaboration (ARCC<sup>®</sup>) Model is a system-wide framework for implementing and sustaining evidence-based practice (EBP) in hospitals and healthcare systems. The model involves assessing organizational culture and readiness for EBP in addition to the development of a critical mass of EBP mentors who work with point-of-care clinicians to facilitate the implementation of evidence-based care. Determining how the various components of the ARCC<sup>®</sup> Model relate to one another is important for understanding how EBP culture and mentorship impact EBP implementation, nurses' job satisfaction, and intent to stay.

**Aims:** The current study aimed to test a model that could explain the relationships and direct pathways among eight key variables in the ARCC<sup>®</sup> Model: (1) EBP culture, (2) mentorship, (3) knowledge, (4) beliefs, (5) competency, (6) implementation, (7) nurses' job satisfaction, and (8) intent to stay.

**Methods:** Structural equation modeling was used to test relationships among the variables in the ARCC<sup>®</sup> Model with data obtained from an earlier cross-sectional descriptive study with 2,344 nurses from 19 hospitals and healthcare systems across the United States.

**Results:** The final structural equation model found that EBP culture and mentorship were key variables that positively impacted EBP knowledge, beliefs, competency, implementation, job satisfaction, and intent to stay among nurses.

**Linking Evidence to Action:** As described in the ARCC<sup>®</sup> Model, establishing a strong sustainable EBP culture along with a critical mass of EBP mentors is crucial for the development of EBP competency and consistent implementation of evidence-based care by nurses. A strong EBP culture along with EBP mentorship also can result in higher job satisfaction and intent to stay. Implementation of the ARCC<sup>®</sup> Model is a key strategy in assisting systems to reach health care's Quadruple Aim.

### BACKGROUND

Evidence-based practice (EBP) is a problem-solving approach to clinical decision-making that integrates the best evidence from research with a clinician's expertise, in addition to a patient's personal preferences and values (Melnyk & Fineout-Overholt, 2019). Implementation of EBP results in high-quality safe care, improved patient outcomes, and decreased healthcare costs (Melnyk, Fineout-Overholt, Giggelman, & Choy, 2017; Woo, Lee, & Tam, 2017; Wu et al., 2018). Even after decades of emphasis on the importance of consistent implementation of evidence-based care, it is still not the standard of practice in many healthcare systems across the United States

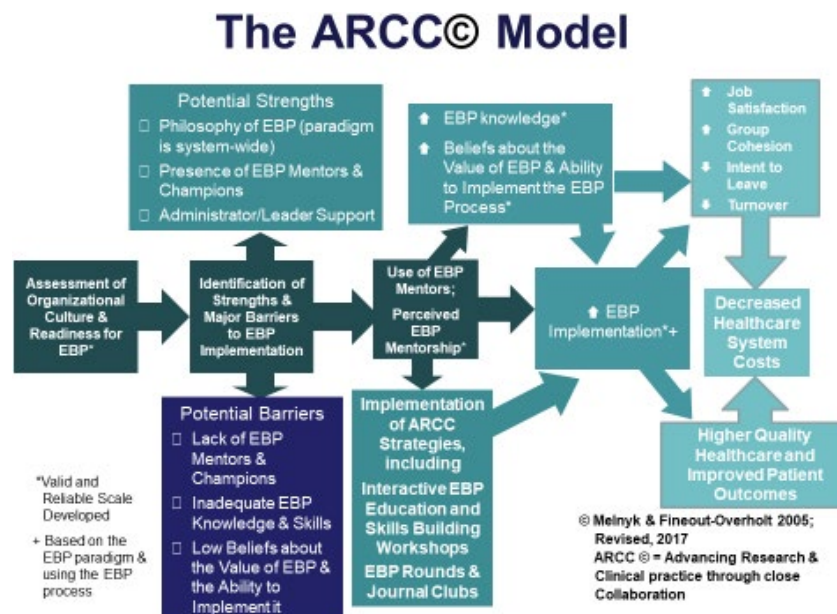
(Ebell, Sokol, Lee, Simmons, & Early, 2017; Melnyk et al., 2016). Findings from a recent national study indicated a self-reported lack of EBP competency by nurses in 19 healthcare systems across the United States (Melnyk et al., 2018). Unfortunately, many clinicians in a multitude of settings across the care continuum continue to deliver care to their patients based upon tradition, outdated policies and procedures, and information learned years before in their educational programs (Melnyk & Fineout-Overholt, 2019). Barriers to implementing EBP persist, including inadequate resources and infrastructures, lack of leadership support, insufficient EBP knowledge and skills, and lack of EBP mentors (Melnyk et al.,

2016; Warren et al., 2016). Instituting EBP as standard of care requires commitment from individual clinicians to achieve EBP competency and deliver evidence-based care consistently as well as solid investment by leaders to provide the needed EBP resources to sustain a strong EBP culture and environment (Shayan, Kiwanuka, & Nakaye, 2019). However, nurses often report a lack of institutional support for EBP as a major barrier to implementation (Li, Jeffs, Barwick, & Stevens, 2018; Melnyk et al., 2016).

Burnout, depression, and high rates of job dissatisfaction continue to plague the nursing workforce (Melnyk et al., 2021; Shah et al., 2021). Research has demonstrated such mental states as being associated with lower patient satisfaction (Brooks Carthon et al., 2021), increased medical errors (Hall, Johnson, Watt, Tsipa, & O'Conner, 2016; Melnyk et al., 2018, 2021), and increased costs related to job turnover (Shanafelt, Goh, & Sinsky, 2017). Job turnover in relation with job dissatisfaction is especially concerning, as one-third of the nursing workforce will be eligible for retirement over the next 10 to 15 years, and 11 million additional nurses will be needed to prevent a future shortage (Haddad, Annamaraju, & Toney-Butler, 2020). The Quadruple Aim in health care posits that work-life improvements for clinicians, including job satisfaction, will in turn, improve population health and patient experiences and reduce healthcare costs (Bodenheimer & Sinsky, 2014). Nurse engagement with EBP has the potential to decrease burnout, improve job satisfaction, and ultimately assist in meeting the Quadruple Aim. Older anecdotal reports from nurses support that engaging in EBP renews their professional spirit, a key variable in professional satisfaction (Maljanian, Caramanica, Taylor,

MacRae, & Beland, 2002). Nurses contend that EBP gives them a voice and allows them to reclaim their authentic self as a real nurse (Strout, 2005). More recently, a longitudinal quasi-experimental study concluded that clinician engagement in EBP reduced burnout over time (Meredith et al., 2018). Further, Kim and colleagues (2016) reported belief in the importance of EBP as a significant positive predictor of job satisfaction when nurse fellows were matched with an EBP mentor during an EBP fellowship program. However, this study was unable to establish EBP implementation as a significant predictor of job satisfaction, nor did it discuss the directionality of such predictors. Beyond the aforementioned studies, there is a paucity of research on the relationships among EBP attributes, nurse job satisfaction, and intent to stay in the literature.

There are several models of EBP in the literature. Some are process models that focus on the specific steps of EBP (e.g., Iowa Model [Iowa Model Collaborative et al., 2017] and Johns Hopkins Model [Dang & Dearholt, 2017]), while others focus on system-wide models for implementation of EBP (e.g., the ARCC<sup>®</sup> Model and the Integrated Promoting Action on Research Implementation in Health Services [Harvey & Kitson, 2016; Kitson & Harvey, 2016]). The ARCC<sup>®</sup> Model (Figure 1) is one of the three most commonly used frameworks for guiding the implementation of EBP (Speroni, McLaughlin, & Friesen, 2020). ARCC<sup>®</sup> was created in 1999 to integrate research with clinical practice within an academic medical center to ultimately improve healthcare quality and safety, population health outcomes, and costs (Melnyk & Fineout-Overholt, 2002, 2019). Early in the model's development, research with



**Figure 1.** The Advancing Research and Clinical practice through close Collaboration (ARCC<sup>®</sup>) Model.

advanced practice nurses and point-of-care nurses identified several barriers and facilitators to evidence-based care, including mentorship in EBP, which emerged as a critical facilitator in the ARCC<sup>®</sup> Model (Tucker et al., 2021). The initial step in the model is an organizational assessment of culture and readiness for EBP. Facilitators and barriers to EBP are identified with a plan to overcome the barriers and leverage the strengths. A critical mass of EBP mentors who work with point-of-care clinicians on the implementation of evidence-based care in hospitals and healthcare systems is then developed. These mentors acquire expanded knowledge and skills in EBP as well as how to foster strong cultures that support it through an intensive 5-day educational skills-building program. This program has been shown to significantly improve EBP attributes (beliefs, knowledge, implementation) and competencies over time, up to 12 months after program completion (Gallagher-Ford, Koshy Thomas, Connor, Sinnott, & Melnyk, 2020). Mentors also assess and monitor outcomes of EBP changes that are made with their guidance. Findings from many studies have supported that when the ARCC<sup>®</sup> Model (Figure 1) is implemented in healthcare systems, clinicians' knowledge and beliefs about the value of EBP and their ability to implement it increase, which is associated with greater implementation of evidence-based care and improved outcomes, both for patients and clinicians (Gorsuch, Gallagher-Ford, Koshy Thomas, Melnyk, & Connor, 2020; Levin, Fineout-Overholt, Melnyk, Barnes, & Vetter, 2011; Melnyk et al., 2017; Wallen et al., 2010). However, the structural relationships in the ARCC<sup>®</sup> Model have yet to be clearly defined. Therefore, the purpose of this study was to create and test a model that could explain the relationships and direct pathways among the key variables in the ARCC<sup>®</sup> Model, including EBP culture, mentorship, knowledge, beliefs, competency, implementation, nurses' job satisfaction, and intent to stay.

## METHODS

### Design

This study used data collected from a national EBP competencies survey (Melnyk et al., 2018) that used a cross-sectional design with an online survey format. A full description of the sample population is summarized in a previous publication (Melnyk et al., 2018). In brief, the sample included practicing nurses and APNs from 19 hospitals and healthcare systems throughout the United States. The majority of nurses were non-Hispanic white (85.5%) and had a bachelor's degree (53.8%).

Email invitations, which included a description of the study purpose and a link to the survey, were sent to eligible participants (i.e., they worked for a health system and held a nursing title). Survey responses were anonymous.

The study received exempt status from the first author's Institutional Review Board.

### Study Measures

The survey included demographic questions, EBP measures (culture, knowledge, beliefs, competency, implementation, and mentorship), the Price and Mueller Job Satisfaction Survey (Price & Mueller, 1986), and intent to stay questions.

#### **Organizational Culture & Readiness for System-wide Integration of Evidence-Based Practice (OCSIEBP)**

The OCSIEBP Scale was used to describe and measure the level of organizational support for EBP. The measure uses a 25-item, 5-point Likert scale (1 = none at all, 2 = a little, 3 = somewhat, 4 = moderately, and 5 = very much) to determine the extent to which the healthcare system in question supports and promotes evidence-based care (Fineout-Overholt & Melnyk, 2006). Questions incorporated in the measure include "To what extent are there administrators within your organization committed to EBP (i.e., have planned for resources to initiate EBP)?" and "To what extent do practitioners model EBP in their clinical settings?" Responses are summed (total scores range from 25 to 125). A higher score indicates a stronger culture and readiness for EBP within an organization. Previous studies have established face and content validity for the scale and demonstrated excellent internal consistency reliability of greater than .85 across multiple samples (Melnyk & Fineout-Overholt, 2019). The Cronbach's alpha with this sample was .96.

#### **EBP Knowledge Assessment Questionnaire**

The EBP Knowledge Assessment Questionnaire, also called the EBP Knowledge Scale, was used to measure clinician knowledge of the EBP process (Melnyk et al., 2018). Items were written to measure knowledge from domains identified in the Melnyk, Gallagher-Ford, Long, and Fineout-Overholt (2014) EBP Competencies for Practicing Registered Nurses & Advanced Practice Nurses and the Quality and Safety Education for Nurses competencies. The measure has 25 multiple choice and 13 true or false questions. Example multiple choice questions include "Which of the follow is NOT a clinical inquiry competency?" and "Which of the following is an example of a complete PICOT question?" Previous research has established face and content validity for the scale and demonstrated excellent internal consistency reliability of .87 (Melnyk et al., 2018). The internal consistency reliability with this sample was .87.

#### **EBP Beliefs Scale**

The EBP Beliefs Scale was used to measure clinicians' beliefs regarding the value of EBP and their ability to

implement it. The measure has 16 items and uses a 5-point Likert scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *neither agree nor disagree*, 4 = *agree*, and 5 = *strongly agree*) to assess level of agreement with the items (Melnyk, Fineout-Overholt, & Mays, 2008). Agreement statements incorporated in the measure include “I believe that EBP results in the best care for patients” and “I believe that I can overcome barriers in implementing EBP.” Scoring on the measure includes reverse scoring of two negatively phrased items and then summing the responses to obtain a total score that ranges between 16 and 80. A higher score indicates stronger beliefs about the value of EBP and the ability to implement it. Previous studies have established face and content validity for the scale and demonstrated excellent internal consistency reliability of greater than .80 (Melnyk et al., 2008). The Cronbach’s alpha with this sample was .89.

#### **EBP Competencies for Practicing Registered Nurses and Advanced Practice Nurses**

The EBP Competencies for Practicing Registered Nurses and Advanced Practice Nurses, also called the EBP Competency Scale, was used to measure clinician competence in a set of 24 competencies derived from a research process that included the collective work of seven national EBP leaders and results from two Delphi surveys (Melnyk et al., 2014, 2018). Clinicians self-rate their level of competence for each of the 24 items using a 4-point Likert scale (1 = *not at all competent*, 2 = *need improvement*, 3 = *competent*, and 4 = *highly competent*). Example competencies include “Integrates evidence gathered from external and internal sources in order to plan evidence-based practice changes” and “Disseminates best practices supported by evidence to improve quality of care and patient outcomes.” Item scores are summed and range from 0 to 96. A higher score indicates a higher level of self-rated competence. Previous research has established face and content validity. The internal consistency with this sample was .98.

#### **EBP Implementation Scale**

The EBP Implementation Scale was used to measure the extent to which EBP was implemented by a clinician over the past 8 weeks. The measure has 18 items and uses a 5-point frequency-scale (0 = 0 times, 1 = < 3 times, 2 = 5 times, 3 = > 5 < 8 times, and 5 = >8 times) to assess how frequently certain EBP activities were performed (Melnyk et al., 2008). EBP activities contained in the measure include “Used evidence to change clinical practice” and “Evaluated a care initiative by college client outcome data.” Responses are summed for a final score that can range between 0 and 90, with a high score indicating higher implementation. Previous studies have established face and content validity for the scale (Melnyk et al., 2008). The Cronbach’s alpha with this sample was .96.

#### **EBP Mentorship Scale**

The EBP Mentorship Scale was used to measure the degree to which nurses had EBP mentors available to them. The measure has eight items and uses a 5-point Likert scale (0 = *none at all*, 1 = *a little*, 2 = *somewhat*, 3 = *moderately so*, and 4 = *very much so*; Melnyk et al., 2018). Example statements include “I have access to a mentor who assists me with implementing the seven steps of evidence-based practice” and “Mentorship is available here to assist me with making practice changes base on best evidence.” Responses are summed for a final score ranging between 0 and 32. A higher score indicates higher availability of mentorship. Previous research has established face and content validity for the scale (Melnyk et al., 2018). The internal consistency of the scale with this sample was .98.

#### **Price and Mueller Job Satisfaction Survey**

This scale was used to measure general job satisfaction using a seven-item 5-point Likert scale (1 = *strongly agree*, 2 = *agree*, 3 = *neither agree nor disagree*, 4 = *disagree* and 5 = *strongly disagree*) on items such as “I find real enjoyment in my job.” Validity and reliability (internal consistency coefficients ranging from .72 to .95) have been established (Price & Mueller, 1986).

#### **Intent to stay**

To determine intent to stay, two questions were included in the survey: (1) “I intend to stay in my current job for at least the next 2 years” and (2) “I intend to stay at this hospital for at least the next 2 years.” Responses to the questions were on a 4-point Likert scale ranging from 0 = *not at all*, 1 = *maybe*, 2 = *probably*, and 3 = *definitely*.

#### **Statistical Analysis**

Descriptive statistics were used to summarize sample characteristics, EBP measures (culture, knowledge, beliefs, mentoring, competency, and implementation), job satisfaction, and intent to stay. Pairwise bivariate correlations of EBP measures, job satisfaction, and intent to stay were examined using Pearson correlation tests. Structure equation modeling was used to examine the path relationships between the EBP measures, job satisfaction, and intent to stay. These variables were treated as observed variables in our model for three reasons. First, the psychometrics of each measurement has been well-established, including their measurement models. Secondly, not including measurement model will reduce complexity considering the large number of EBP variables and complicated paths in our model. Lastly, this is consistent with how studies in this area generally analyze the EBP scales (that is, using total scores in the analysis rather than analyzing them as latent variables with measurement models). The initial model was built based on the ARCC<sup>®</sup> Model (Melnyk & Fineout-Overholt, 2019). The final model was derived by modifying the initial model based on path coefficient estimates and

modification indices. A good model fit is indicated by a comparative fit index (CFI) of  $\geq 0.95$ , a Tucker Lewis Index (TLI) of  $\geq 0.95$ , and a root mean square error of approximation (RMSEA) of  $< 0.08$ . MPlus was used for structure equation modeling and SAS 9.4 (SAS Institute, Cary, NC) for all the other analyses.

## RESULTS

Sample demographics were fully described in a previous publication (Melnik et al., 2018). Briefly, the nurses who completed the survey ( $n = 2,344$ ) had a mean age of 44.5 years ( $SD = 12.5$ ), with a majority being female (92.0%) and non-Hispanic whites (85.5%), with a bachelor's degree (53.8%) and working in a Magnet-designated organization (69.2%). Table 1 summarizes the mean ( $SD$ ) of the EBP measures, job satisfaction, and intention to stay in addition to their pairwise bivariate correlations. Significant bivariate correlations existed among the EBP measures, with Pearson  $r$  correlations ranging from .26 for the EBP knowledge and implementation correlation to .68 for the EBP culture and mentoring correlation. EBP measures correlated with job satisfaction, including EBP culture ( $r = .30$ ), EBP knowledge ( $r = .14$ ), EBP beliefs ( $r = .17$ ), and EBP mentoring ( $r = .24$ ), although knowledge and beliefs were weak associations. EBP measures that were correlated to intent to stay included EBP culture ( $r = .20$ ) and EBP mentoring ( $r = .21$ ). Job satisfaction was significantly correlated with the intention to stay ( $r = .49$ ).

Figure 2 shows the results of the initial model based on the ARCC<sup>®</sup> Model. The standardized coefficient and its standard error (SE) were shown for each path. Three paths (mentor to knowledge, implementation to job satisfaction, and implementation to intent to stay) were not statistically significant. The model had a lack of fit with the Chi-square statistic = 1,241.9 ( $df = 14$ ,  $p < .001$ ), CFI = 0.753, TLI = 0.507, and RMSEA = 0.204. There were several significant modification indices, suggesting alternative paths. Based on the path coefficients and model modification indices, a final model was derived (Figure 3) by removing nonsignificant paths (e.g., mentor to knowledge, implementation to job satisfaction) in the initial model and adding new paths (e.g., EBP culture to job satisfaction). All path coefficients in the final model were significant. No significant modification indices were observed. The model had a significant Chi-square statistic (73.6,  $df = 13$ ,  $p < .001$ ) due to the large sample size of the study. However, all other model fit indices suggested a close fit with the CFI = 0.988, TLI = 0.974, and RMSEA = 0.047 (90% CI [0.037, 0.058]). The final model found that EBP culture was a key variable that directly affected EBP knowledge, beliefs, competency, mentoring, and job satisfaction. It also indirectly influenced EBP knowledge, beliefs, competency, implementation, and intent to stay. EBP culture indirectly influenced EBP

knowledge through EBP beliefs and mentoring. Its indirect effect on EBP beliefs was through mentoring. The effects of EBP culture on EBP competency were mediated by EBP knowledge, beliefs, and mentoring. The effects of EBP culture on EBP implementation were mediated by EBP knowledge, beliefs, mentoring, and competency. EBP culture also had a positive effect on the intention to stay through increasing job satisfaction and higher EBP mentoring. EBP mentorship also was a key variable in the model as it directly affected nurses' EBP competency, implementation, and intent to stay. The effect of EBP mentoring on EBP implementation was mediated by EBP beliefs.

## DISCUSSION

The results from the current study corroborate the dynamic manner in which EBP measures in the ARCC<sup>®</sup> Model interact and provide evidence for clear structural pathways, a component that Li et al., (2018) reported as missing from the literature. The findings from this study demonstrate EBP culture as a key variable that directly affects EBP knowledge, beliefs, competency, mentoring, and job satisfaction. According to the prominent leader and management consultant Peter F. Drucker, "culture eats strategy," as even when a strategic plan is in place, clinicians are unlikely to change their behaviors if a strong culture that makes EBP the standard or norm in the health-care system does not exist. This finding also provides possible insight as to why Kim et al., (2016) did not establish EBP implementation as a significant predictor of job satisfaction. Based on the current study's findings, the path to job satisfaction does not come directly from EBP implementation. Rather, job satisfaction is a result of an organizational culture supportive of EBP. A culture supportive of EBP means the organization provides needed resources (e.g., educational skills-building programs), protected time to implement EBP, and EBP mentors for nurses to successfully engage in EBP (Li et al., 2018; Melnyk & Fineout-Overholt, 2019; Speroni et al., 2020), as well as leadership support. In turn, culture then indirectly impacts nurses' intent to stay through job satisfaction and EBP mentorship.

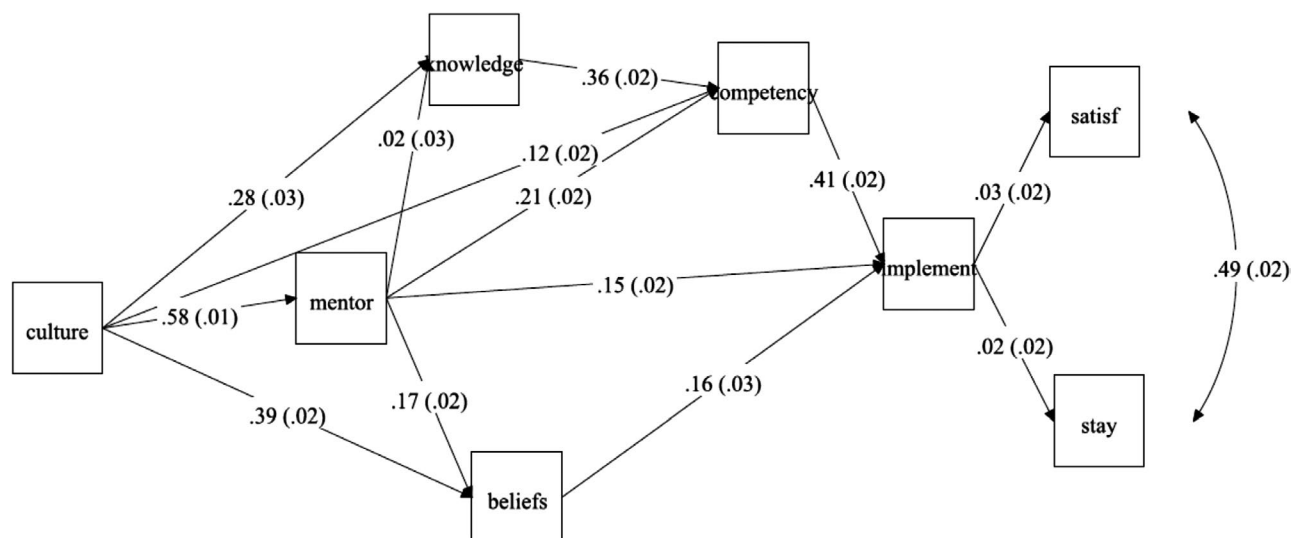
Implementation of EBP continues to remain low in most healthcare systems across the United States and globe, even when nurses hold strong beliefs and knowledge in EBP (Melnik & Fineout-Overholt, 2019; Melnyk et al., 2016, 2018; Saunders, Gallagher-Ford, Kvist, & Vehviläinen-Julkunen, 2019; Warren et al., 2016). The structural analysis performed in this study emphasized that the course to improving implementation is underpinned by an organization's culture and further facilitated by the mediating factors of EBP knowledge, beliefs, mentoring, and competency. All factors must be in alignment to improve EBP implementation.

Culture change takes time (typically 5 to 10 years), and leaders are key in creating the culture; thus, there must be

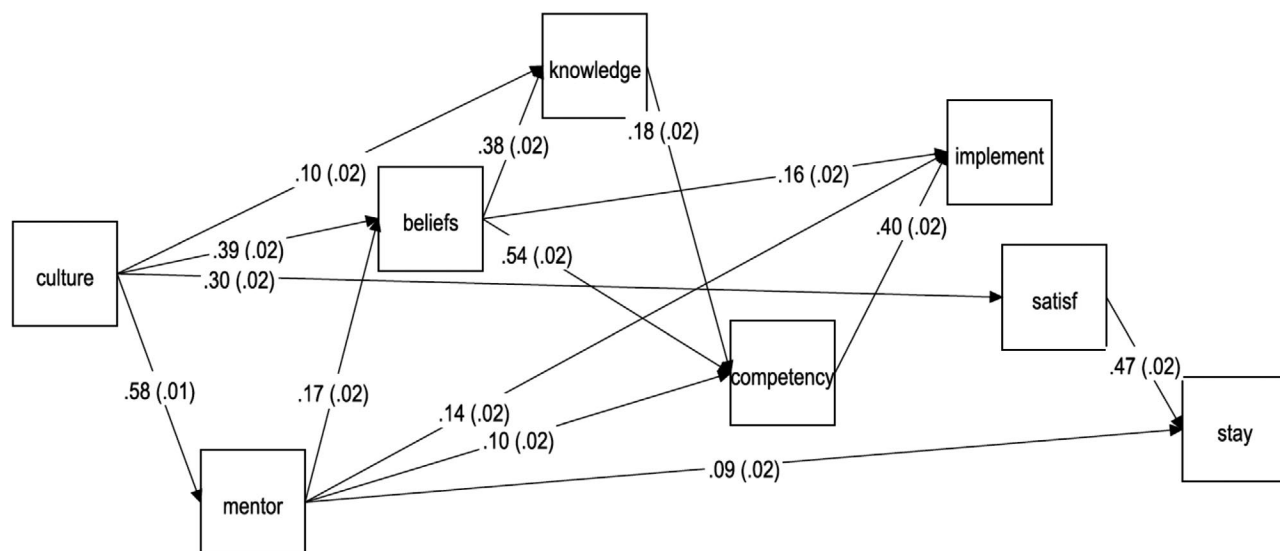
**Table 1.** Relationships Among EBP Culture, Knowledge, Beliefs, Mentoring, Competency, Implementation, Job Satisfaction, and Intent to Stay

	Pearson Correlation Coefficient, $r^a$ ( $p$ value)							
	Mean (SD)	EBP knowledge	EBP beliefs	EBP mentoring	EBP competency	EBP implementation	Job satisfaction	Intention to stay
EBP culture	80.2 (21.9)	0.29 <sup>+</sup> ( $p < .001$ )	0.49 <sup>++</sup> ( $p < .001$ )	0.68 <sup>+++</sup> ( $p < .001$ )	0.35 <sup>++</sup> ( $p < .001$ )	0.29 <sup>+</sup> ( $p < .001$ )	0.30 <sup>++</sup> ( $p < .001$ )	0.20 <sup>+</sup> ( $p < .001$ )
EBP knowledge	19.5 (7.0)	–	0.43 <sup>++</sup> ( $p < .001$ )	0.28 <sup>+</sup> ( $p < .001$ )	0.43 <sup>++</sup> ( $p < .001$ )	0.26 <sup>+</sup> ( $p < .001$ )	0.14 <sup>+</sup> ( $p < .001$ )	0.00 ( $p = .82$ )
EBP beliefs	56.7 (8.5)	–	–	0.47 <sup>++</sup> ( $p < .001$ )	0.66 <sup>+++</sup> ( $p < .001$ )	0.47 <sup>++</sup> ( $p < .001$ )	0.17 <sup>+</sup> ( $p < .001$ )	0.10 <sup>+</sup> ( $p < .001$ )
EBP mentoring	21.4 (10.9)	–	–	–	0.41 <sup>++</sup> ( $p < .001$ )	0.38 <sup>++</sup> ( $p < .001$ )	0.24 <sup>+</sup> ( $p < .001$ )	0.21 <sup>+</sup> ( $p < .001$ )
EBP competency	53.7 (16.1)	–	–	–	–	0.55 <sup>+</sup> ( $p < .001$ )	0.06 ( $p = .01$ )	0.00 ( $p = .96$ )
EBP implementation	30.3 (12.9)	–	–	–	–	–	0.03 ( $p = .25$ )	0.02 ( $p = .39$ )
Job satisfaction	33.4 (6.0)	–	–	–	–	–	–	0.49 <sup>++</sup> ( $p < .001$ )
Intention to stay	6.6 (1.7)	–	–	–	–	–	–	–

Note. <sup>a</sup>The study is overpowered due to large sample size ( $n = 2,344$ ); therefore, effect sizes are emphasized for results interpretation.  
<sup>+</sup> = small effect size; <sup>++</sup> = medium effect size; <sup>+++</sup> = large effect size.



**Figure 2.** Initial model based on the ARCC® Model.



**Figure 3.** Final model based on the ARCC® Model.

substantial effort on the part of healthcare system leadership to continue to allocate resources to build and support a strong EBP culture with EBP programming (Bianchi et al., 2018; Melnyk, 2016). EBP should be a component of the organization's vision and mission statement, job descriptions, new nurse onboarding, clinical ladders (i.e., professional advancement programs), and annual performance evaluations to communicate that it is the foundation for the delivery of high-quality safe care (Melnyk, 2016). Furthermore, findings from a body of research indicate that a critical mass of EBP mentors, as described in the ARCC® Model, is key to strong sustainable EBP implementation because the mentors enhance clinician beliefs in the value of EBP,

which results in higher implementation (Melnyk et al., 2017). The structural analysis conducted in this study provides evidence once again to support the key role of EBP mentorship in impacting nurses' EBP beliefs, which leads to a higher implementation of evidence-based care.

#### Limitations

The major limitation of this study is that, although structural paths were created in the modeling, the study used cross-sectional, not longitudinal, data. Therefore, conclusions should not be drawn on the causal relationships implied by the SEM path analyses. Future studies should use longitudinal data.

## CONCLUSION

Despite the findings from decades of research indicating that EBP improves healthcare quality, safety, and costs, EBP is still not standard of practice in many healthcare systems across the United States and globe. Barriers to implementation include inadequate resources, as well as lack of leadership support, education and skills-building opportunities, and EBP mentors. The current study demonstrated that EBP culture is a key variable that directly impacts EBP knowledge, beliefs, competency, mentoring, and job satisfaction. EBP mentorship also enhances EBP competency and implementation as well as nurses' intent to stay in their positions. Implementation of an organized strategic framework, such as the ARCC<sup>®</sup> Model (Melnik & Fineout-Overholt, 2019), can provide healthcare organizations with a system-wide approach for facilitating and sustaining EBP to ultimately improve healthcare quality, safety, costs, and patient outcomes. **WVN**



### LINKING EVIDENCE TO ACTION

- The results from this study substantiate the dynamic manner in which EBP attributes interact and provide evidence for structural pathways.
- The course to improving EBP implementation depends upon an organization's EBP culture and the mediating factors of EBP knowledge, beliefs, mentoring, and competency. All components must be in alignment to improve implementation.
- EBP culture positively impacts nurses' job satisfaction.
- EBP mentorship positively impacts EBP competency and implementation as well as nurses' intent to stay in their position; therefore, healthcare organizations should develop a critical mass of EBP mentors to work with them in delivering evidence-based care as described in the ARCC<sup>®</sup> Model.
- EBP competency should be a component of the organization's mission statement, job descriptions, new orientations, clinical ladders, and annual performance evaluations to emphasize that it is the foundation for the delivery of all care.

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