

## RESEARCH ARTICLE

# THE FUTURE OF NURSING SCIENCE: CONSILIENCE IN EVIDENCE-BASED PRACTICE

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## Abstract

Nursing science needs to adopt a paradigm that can be used to apply its knowledge. Notably, how nursing science is applied in nursing practice or education remains confusing. This article aims to discuss the pros and cons of the two ways to implement nursing science, that is, evidence-based practice (EBP), translational research and research utilization) and intuitive nursing. Also, I differentiated evidence-based practice (EBP), translational research (TR), and research utilization (RU). I argued that EBP as the paradigm of choice will be the optimal strategy for the future of nursing science. Adopting EBP improves patient, organizational, and staffing outcomes. While basing clinical decisions on intuition alone may imperil patient's safety due to multiple cognitive biases inherent in our intellectual devices. Combining EBP, TR, RU, and intuitive nursing resulted in a model *Consilience in Evidence-based Practice*. Implications of the model for nursing practice, education, and research were also discussed.

**Keywords:** Evidence-based Practice, Translational Research; Research Utilization, Intuition, Consilience

## Introduction

Nursing science is a health science focused on promoting, restoring, and sustaining health in human beings (Donaldson, 2003). The definition poses a future of nursing science that is promising, oblique, and co-dependent with other professions. These claims are supported by evidence from scientific articles and books. But, where do we initially ground these claims? Two opposing articles with an identical title: *'The idea of nursing science'* by Edwards (1999) and Winters and Ballou (2004) explored the state of nursing science both as legitimate (promising) and illegitimate (oblique). These articles are non-sequitur and complementary, therefore not contradictory. A profession to earn the prestige of science needs to prove itself in the process (O'Hear, 1990), i.e., evolved based using the adopted paradigm (Kuhn, 1970). Whether nursing is a science or not is not the argument I am going to take (much has been written about that). What I chose to explore is the idea that nursing may need to substantiate existing paradigm in order to prove itself as a science and survive, reinvent itself in the realm of scientific evolution.

Nursing science is metaphorically likened to a sailor experience of journeying- moved by the wind of change, directed strength blown to the shrouds, stamina of the hull, the important role of the boater, and many external factors that may confound the drift of the seafarer. The unstable, oblique, and opposing melee in this discussion is marked evidence of the robustness, evolution, and

evinced sailor's excitement to morph nursing science into its much-deserved pedestal in the realm of professions. A slightly oblique forestay held by the mast could change the course of nursing science. That is why the prudent adoption of paradigm is an important decision contemporary nurse scientists need to decide and agree. These constructs, I claim, is a burden, a curse, and responsibility for nurse scholars. Let me tell you why.

In the Philippines and four neighboring countries, Turner (2009) found out that 93 health workers were apprehensive on evidence-based practice (EBP). The study findings shows the need to anchor EBP paradigm from existing way in implementing nursing science otherwise nurses would resist the approach further. However, anchoring in existing framework is inadequate. Locsin and Purnell (2013) argued that professional nursing practice needs to be grounded in strong nursing science. This does not stop there; some nursing questions demand answers. Some of these questions include where we should base nursing knowledge? What is nursing knowledge in the first place? How do we develop nursing science? One thing is for sure if we (as nurse scholars of this generation) tolerate status quo, we are doomed. That rather than exploring the enigmatic sea, we can be stuck in one abyssal place. For we determine its trajectory- by what we do today (Gordon, 2005). We somehow adopt, writes, nor rewrites what could happen, and how we want the society value what we do. This is our burden and responsibility. "With power comes

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responsibility,” says a superhero. This responsibility to some extent is a curse. Because we need to work hard, calling for healthy and sometimes painful discussions challenging our set of unchallenged beliefs and ways of doing things to move us forward.

This article aims to discuss the pros and cons of two ways to implement nursing science, that is evidence-based practice (including translational research & research utilization) and intuitive nursing. Also, I differentiated evidence-based practice, translational research, and research utilization. I argued that using evidence-based practice will be of optimal strategy to advance nursing science.

### **Evidence-based Practice (EBP), Translational Research (TR), and Research Utilization (RU)**

Let me continue by differentiating the three important paradigms in implementing nursing science. Evidence-based practice (EBP) is an approach in informed decision making through the use of the best evidence considering the individuality of patients and facilitators (Harvey & Kitson, 2015; Melnyk Fineout-Overholt, Stillwell, & Williamson, 2010; Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996). The definition extends to three major components of EBP: best evidence, patient's values and preferences, and clinical expertise. In other words, EBP serves as the bridge to close the gap between the two essential areas (research and practice) of healthcare industry by considering all the stakeholders.

The various literature on research uptake led to the development of tributaries, i.e., translational science, and research utilization. Table 1 shows that translational research (TR) leans towards cyclical “bench to bedside approach” (Woolf, 2008 p.211) with the emphasis in interprofessional collaboration (Woods & Magyary, 2010). It is believed that using TR would hasten translation of what is discovered through scientific methods to the bedside. In general, research uptake could ripple to policy enhancement such that Pearson, Weeks, and Stern (2011) emphasized the role of research in shaping health policy. Moreover, research utilization (RU) commonly used interchangeably with EBP, is dissimilar (Black, Balneaves, Garossino, Puyat, & Qian, 2015; Estabrooks, 1999). In RU, there is a mere translation of research to bedside without consideration of patient values and preferences and the clinical expertise of the nurse. While RU often involves just a single research translation. Which is to say that EBP is an overarching term subsuming TR and RU. Therefore one knowledge utilization as the definition of RU and is part of searching the best evidence (which is the second step of EBP), while interprofessional collaboration (hallmark in TR) is necessary for considering the implementability and other contextual facilitating or hindering factors under the clinical expertise. EBP, TR, and RU may be different terms, but they are complementary approach as shown in Table 1.

Asking the right (or burning) question is the first step in EBP. The clinical question will initiate what study to be culled, appraised, and implemented (Melnyk *et al.*, 2010). After appraising and summarizing the selected studies, there is a need to check patient/ consumer preferences by asking for relevance, exhaustive presentation of the evidence to the patient, validating the desire to participate, and ensuring that patient have ample time to decide (Dearholt & Dang, 2012). This way patient's participation in the EBP project will be fully optimized. The last step of EBP is to ensure the clinician experiences jibes with the EBP intervention. This could be done by checking the attributes of an expert (e.g., holistic practice knowledge, skilled know-how, moral agency, and knowledge of the patient) plus enablers (such as reflexivity, autonomy, authority, good working relationship, and authentic recognition from others) as Hardy, Tichen, Manley, and McCormack (2006) proposed.

Dankwa-Mullan *et al.* (2010) viewed TR as the intersection among transformational, transdisciplinary, including translational itself. In transformational research, there is a need to consider the organizational culture and to identify structure in embedding research culture in the institution. Part of transformational research is somehow linked to transdisciplinary research, that is participatory and team development strategies. These components constitute a more holistic organizational involvement. Of which the discovered idea or research is developed by aligning with the vision and actual scenario in the institution while encouraging interprofessional to buy the idea. If they (other team members) saw and developed the willingness as part of the translational team, then TR is implemented.

In research utilization (RU) there are three major types according to Estabrooks, Wallin, and Milner(2003): instrumental, conceptual, and symbolic as shown in Table 1. In instrumental RU, there is a reified application of the research to tangible clinical materials like protocols or ward policy. Sometimes this can be in a more comprehensive form of clinical practice guidelines. A corollary is the existence of believed research uptake in someone's head or cognitive faculties but may not necessarily translate into action called the conceptual RU. There are times that research is equated to political move influencing policy and decisions called the symbolic RU. To note, in RU the focus is clearly in the research. Funk, Tornquist, and Champagne (1989) presented the three major features of RU: 1. qualities (like relevance, applicability, availability); 2. communication characteristics (meaning nontechnical language, strategies in implementation) and; 3. facilitation of utilization (such as reinforcement, dialogue, sharing of experience, support). With this, RU disregards external and internal factors like context, environment, patients, or the expertise of the nurse. An RU gap filled by intuition. These may be one of the reasons why nurses in the 21<sup>st</sup> century still uses instincts or intuition to practice nursing instead of EBP.

Table 1. Difference among EBP, TR, and RU

DIMENSIONS	EVIDENCE-BASED PRACTICE (EBP)	TRANSLATIONAL RESEARCH (TR)	RESEARCH UTILIZATION (RU)
A. Definition	<p>“problem-solving approach to clinical decision-making within a health care organization” (Dearholt&amp; Dang, 2012 p.4)</p> <p>“problem-solving approach to the delivery of health care that integrates the best evidence from studies and patient care data with clinician expertise and patient preferences and values” (Melnyk <i>et al.</i>, 2010 p.51)</p>	<p>“...process arising from a need, specifically, the need to move research findings into policy and practice” (Pearson, Weeks, &amp; Stern, 2011 p. 67)</p> <p>“The dominant view of TR overly emphasizes the translation of the results of “basic,” “bench,” or discovery research into clinical application through the conduct of clinical trials” (Pearson, Jordan, &amp; Munn, 2012, page 6).</p>	<p>The process of using single research as a basis for changing practice. (Barnsteiner&amp; Prevost, 2002)</p> <p>“specific type of knowledge utilization... complex process in which knowledge, in this case in the form of research, is transformed from the findings of one or more studies into possible nursing interventions, the ultimate goal of which is used in practice.” (Estabrooks, 1999 p. 204)</p>
B. Major components	<ul style="list-style-type: none"> <li>▪Best evidence</li> <li>▪Patient values and preferences</li> <li>▪Clinical expertise (Melnyk <i>et al.</i>, 2010)</li> </ul>	<p>Exists in a continuum:</p> <ol style="list-style-type: none"> <li>1. Basic Science or Discovery</li> <li>2. Development</li> <li>3. Delivery</li> <li>4. Adoption</li> </ol> <p>(Dankwa-Mullan, Rhee, Stoff, Pohlhaus, Sy, Stinson Jr, &amp; Ruffin, 2010)</p>	<ul style="list-style-type: none"> <li>▪Qualities of research</li> <li>▪Characteristics of the communication</li> <li>▪Facilitation of utilization</li> </ul> <p>(Funk, Tornquist, &amp; Champagne, 1989)</p>
5. Models	<ul style="list-style-type: none"> <li>▪Academic Center for Evidence-based (ACE) Star Model of Knowledge Translation</li> <li>▪Advancing Research and Clinical Practice Through Close Collaboration (ARCC)</li> <li>▪Iowa Model</li> <li>▪Johns Hopkins Nursing Evidence-based Practice Model (JHNEBP)</li> <li>▪Promoting Action on Research Implementation in Health Services Framework (PARIHS)</li> <li>▪Stetler Model (Schaffer, Sandau, &amp;Diedrick, 2013)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Transformational</li> <li>▪ Transdisciplinary</li> <li>▪ Translational</li> </ul> <p>(Dankwa-Mullan, Rhee, Stoff, Pohlhaus, Sy, Stinson Jr, &amp; Ruffin, 2010).</p>	<ul style="list-style-type: none"> <li>▪ Instrumental utilization</li> <li>▪ Conceptual utilization</li> <li>▪ Symbolic utilization (Estabrooks, 1999)</li> </ul>
6. Sample application	<p>Transitional care model is cost-effective and decreases readmission or death, and improves overall clinical outcomes among hospitalized older person (Naylor, Brooten, Campbell, Maislin, McCaueley, &amp; Schwartz, 2004).</p>	<p>Randomized Controlled Trial of Child FIRST (Child and Family Interagency, Resource, Support, and Training) lessen parental stress and lowers psychopathology symptoms after embedding in the system care (Lowell, Carter, Godoy, Paulin, &amp; Briggs-Gowan, 2011).</p>	<p>Using the internet as virtual cardiac rehabilitation program were found to have no adverse outcomes, resulted in favorable feedback to the experimental group, and significant improvement in risk factors and exercise pattern (Zutz, Ignaszewski, Bates, &amp; Lear, 2007).</p>

### Evidence-based Practice and Intuitive Nursing

Research use is a complicated endeavor (Poe & White, 2010). One cannot just focus solely on the research or evidence; otherwise, the view is narrow. Nurse scientist needs to consider nursing leadership readiness, organizational infrastructure, research competencies, the patient's preferences/values, and the robustness of the evidence (Poe & White, 2010; Gerrish & Clayton, 2004; Kitson, Harvey, & McCormack, 1998). Other contributory factors such as those mentioned above make research uptake complicated (Saunders & Vehviläinen-Julkunen, 2016). That deserves another full paper and is not my focus. What I want to take as an argument in this section is the word evidence, which is the same concept that bothered Rycroft-Malone *et al.* (2004).

Rycroft-Malone *et al.* (2004) asked what counts as evidence in evidence-based practice? They explicated that there are two major approaches to care: external or scientific and internal or intuitive. Let me walk you through the definition first of what scientific evidence is. The Popperian view of science demarcates the scientific and non-scientific works. He posited that if a theory is so vague, untestable, or unfalsifiable- it is unscientific (Popper, 1999). Therefore theory-informed, logical deductions, and verifiable constructs which are reachable using the senses are scientific. Evidence-based practice to a large extent is a science in action, consistent with the claim that nursing is a practice-based profession (Dickoff, James, & Weidenbach, 1968). Had I wish that it is simple as that. But in nursing, even as we claim it as a science, there are many untestable (or maybe difficult to test) methods that we use such as intuition. Intuition is the gut feeling (Schmidt & Brown, 2012) or thinking without awareness (Myers, 2002). The acceptance of this direct perception brought by informational basis (Effken, 2007) is deeply embedded in nursing theory. The Stages of Clinical Competency theory by Benner, Tanner, and Chesla (2009) regards an expert as possessing a highly developed intuitive sense. This nursing theory posits that in solving difficult and complicated clinical problems- an 'expert' acts with agility, quickly, and fluidly even with the absence of a complete set of information.

These set of information are the scientific 'evidence.' In warrantable evidence in nursing science article by Forbes *et al.* (1999), it is necessary that to be grounded in strong science, we must meet three major warrants: (1) methodological soundness, (2) corroboration and intersubjectivity, and (3) scope of evidence as can be gleaned in Table 2. These constitute good scientific scholarship. Methodological soundness conveys precise and strict adherence to objectivity. In other words, definiteness is good science. It can be achieved by coherence or systematic approach in developing evidence-based nursing interventions. If another nurse scientist replicated a study then intersubjectivity is warranted. Lastly, the scope may need to be comprehensive. This is the ability of good evidence to be used for an intended purpose appropriate for application in a multitude of clinical setting.

Using the above criteria by Forbes *et al.* (1999), intuition fell short in the first two warrants. It will have difficulty attaining

methodological soundness and is difficult to replicate. Lyneham, Parkinson, and Denholm (2008) recounted a story during New Year's Eve in an Emergency Room (ER). Before midnight, a 7-month-old baby was brought in the ER due to asthma with respiratory distress, specifying no more complaints. After seeing the baby, "I felt my stomach turn" says the nurse, requesting the pediatric resident to move the baby to the resuscitation room. Two hours later the baby was wheeled to the operating theater for an undiagnosed ventral septal defect. This is supporting 'evidence' of the significance of intuition in clinical practice.

Even I cannot avoid using 'hedging' in describing the situation- 'evidence.' The anecdote by Lyneham, Parkinson, and Denholm (2008) is an example of the deconstructed discourse of EBP (and science in general) hegemony and its dominance in the healthcare arena as Holmes, Murray, Perron, and Rail (2006) argues. Noteworthy is the Lyneham, Parkinson, and Denholm (2008) added the three distinct phases of intuition: cognitive (i.e., rationalizing ex-post-facto or doing subconsciously), transitional (meaning physical sensation or other signs felt by the nurse), and embodied (which is trusting what s/he felt). Also, Green (2012) added that intuition distinctly starts with the embodying of the experience. Then the experience may merge with the senses until it reaches one's conceptual knowledge and understanding. This will produce an automatic actions which are brought about by intuition. Holm and Severinsson (2016) summarized the evidence about the two levels of intuition, namely the conscious thought processes (sensing, aware, sudden) and the action (as influenced by external factors). This systematic review implies that intuition has two phases namely the consistent input to the senses and the action. These articles support that intuition can be evidential and consequential hence the promotion of intuition in professional nursing practice (Payne, 2015).

Contemporary scientific literature seems to negate the acceptance of intuition in science. Nobel Laureates Daniel Kahneman and Amos Tversky compiled their lifetime works about intuition in the book *Thinking, fast and slow* in 2011. They largely refute intuition as scientific evidence because it is plagued by biases and heuristics both conscious and unconscious. One of which is what Kahneman called availability heuristics, defined as "wish[ing] to estimate the size of a category or the frequency of an event, but you report an impression of the ease with which instances come to mind" (p. 130). Borrowing as an example from Myers (2002 p. 123), "in English words, does *k* appear more often as the first of third letter?...words beginning with *k* come more readily, and so they assume that *k* occurs more frequently in first position. Actually, *k* appears two to three times more often in the third position." Suppose that a Medical ward nurse just read in a local newspaper that there is a 30% increase of Human Immunodeficiency Virus (HIV) in their province. Then male patient X was admitted in the ward with symptoms of a sore throat, muscle pains, rashes, chills, tiredness and swollen glands. With availability heuristic influence, the nurse would jump to conclusion that this is an HIV case even from the very fact that these are nonspecific symptoms. The nurse need to ask complete information, consider an alternative

hypothesis, and is aware of factors that may have influenced her/his decision-making. Then availability heuristics will be overcome. Also, Kahneman (2011 p. 81) discovered confirmation bias, that is “seek[ing] data that are likely to be compatible with the belief they currently hold.” Cognitive bias as a way of thinking has no place in a professional science like nursing that deals with human life. In intuitive nursing, we could make abrupt decisions, 'because we have seen it in the past,' that can turn out to be different. Going back to the contrived example of male patient X. Supposed during the assessment the nurse found additional symptoms like night sweats, headaches, generally feeling unwell, and weight loss all other things being equal, this would 'confirm' the intuition of the nurse. Stigma might ensue, emotions heightened, resources might be wasted, or inappropriate nursing interventions might be implemented. For all the heuristics, this could be a plain influenza case. We change our ideas or belief based on facts not just because we 'feel' them. Dobelli (2013) called confirmation bias as the mother of all biases because it influences or distorts how we make everyday decisions.

The next two paragraphs discusses the disadvantages of using EBP approach. EBP is not immune to sound criticism. Questions as to the validity and reliability of research findings have been raised. Ioannidis (2005) explained that many research is underpowered and biased. He noted that many published studies have small effect size calling into question generalizability. Many research too is susceptible to distorted findings due to publication bias, measurement errors, and methodologically flawed designs. True enough, Fanelli (2009) conducted a systematic review and meta-analysis on fabrication and falsification of research findings. The results are appalling, 33.7%-72% admitted questionable research practices with a pooled weighted average 1.97% (N=7, 95%CI: 0.86-4.45). The large distorted studies puzzled me because we belong in an enterprise committed to finding the truth. Remember that Forbes *et al.* (1999) and Popper (1999) proposed replicability as the mark of good science. Pashler and Harris (2012) exposed that replicability is excessively inflated. They said

that 5% as an alpha level is low, resulting in replicability crisis. That is why Pashler and Harris (2012 p. 531) recommended “systematic reform in scientific practice.”

Both Thorsteinsson (2013) and Turner (2009) found out that the major barriers of using EBP are limited access to good evidence and lack of resources including time, skills, mentors. This means that from an organizational standpoint, EBP is an investment in which returns are not seen immediately (Proctor *et al.*, 2015). Baumann (2010) also added that, despite its advantages, EBP does not eliminate uncertainty. Recipients of nursing interventions are unique and have varying degrees of preferences and genetic predisposition. One intervention that perfectly suits one person might not be applicable to another person. As the Heisenberg's uncertainty principle states that what has been accepted as facts or strong evidence can just be a practical observation (Busch, Heinonen, & Lahti, 2007). Another argument against EBP was its obvious bias towards technical nursing actions and not on holistic approach (Mitchell, 1997). For example, a nurse caring a post-cardiac surgery might only focus on early ambulation and medications but not on adequate diet, sunlight, exercise, or good communication. These other factors are important to patient's recovery. Both these two arguments against the sole use of EBP can be summarized in the inability of EBP to capturing the respect for human dignity and the complexity of patient care (Baumann, 2010).

Reflecting that even EBP is subjected to the type of scrutiny we impose on intuition. In defense of EBP, the flaw does not emanate from the scientific method but to the implementers and paradigm shortcomings. Unlike in intuition that the flaws as Kahneman (2011) and Myers (2002) infer is deeply rooted in our cognitive devices. Therefore, apprehension is warranted. Summary of these arguments can be seen in Table 2.

Despite the cognitive shortcomings of the nurse scientists, the application of EBP is proven to be beneficial to patients and health organizations. Recent literature suggests that nurses and

Table 2. Comparison between EBP and Intuitive Nursing

DIMENSIONS	EBP	INTUITIVE NURSING
<b>A. Strength</b>	<ol style="list-style-type: none"> <li>Easily replicable</li> <li>Based on hard scientific methods</li> <li>Very much accepted in contemporary world</li> </ol>	<ol style="list-style-type: none"> <li>Decisions are made very fast</li> <li>Gives credence to experience</li> <li>Sometimes decision is right</li> </ol>
<b>B. Weakness</b>	<ol style="list-style-type: none"> <li>Decisions can be slow</li> <li>Hegemony or thinking that other methods are inferior</li> <li>Maybe constricted (i.e., not capturing the context or inner phenomena)</li> <li>Maybe focused only on technical nursing actions.</li> </ol>	<ol style="list-style-type: none"> <li>May have difficulty transferring the skills from one person to another</li> <li>The potential to develop intuition is built-in.</li> <li>Need year to develop</li> <li>Not warranted, could be a form of feeling, high failure rate</li> <li>Can be distorted by cognitive biases e.g. availability heuristics and confirmation bias</li> <li>Sometimes a decision is misinformed.</li> </ol>

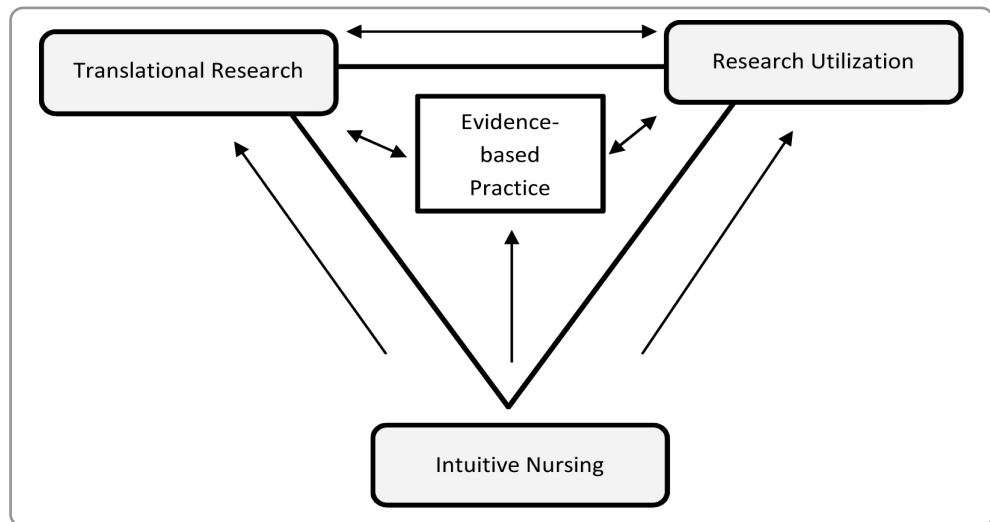
organization using EBP approach can be clinically associated to an improvement of various patient outcomes including hospital-acquired infections, pressure ulcers, falls, and trauma (Harper *et al.*, 2017; Stalpers, de Brouwer, Kaljouw, & Schuurmans, 2015). In the same way, EBP application can produce cost-effective, patient-centered, system-based, and replicable interventions which might result to better employee satisfaction and involvement, scientifically-based strategies, and clearer guidelines on health outcome implementation (Dearholt & Dang, 2012). One concrete example is the seminal study on nurse staffing and patient mortality, readmission, and the failure to rescue by Aiken, Clarke, Sloane, Sochalski, and Silber (2002) had been influencing staffing in California and other states in the USA, in Europe (Aiken *et al.*, 2014), in Australia (Duffield *et al.*, 2011), and in South Korea (Cho, Hwang, & Kim, 2008). This suggests that basing clinical decisions using EBP tend to be more tractable and produces tangible, measurable outcomes. To achieve the intended outcomes, nurse scientists need to generate a holistic, scientific, and uniform approach.

The term consilience or the unity of knowledge is borrowed from the book by the eminent biologist Edward O. Wilson (1998). The word consilience suggests “interlocking of causal explanation across discipline” (p.325) implying the need to take combined, applicable idea from different approach, and put them together until it makes a coherent conjecture. Consilience fits the framework developed in this paper because it stimulates such an appeal of a “prospect of intellectual adventure... the value of understanding the human condition with a higher degree of certainty” (p. 9). The tripartite interlock of EBP, TR, and RU could create less semantic confusion to nurse scientists venturing into nursing science. In the developed model, there are two types of direction: unidirectional and bidirectional. Unidirectional arrow means that the relationship is one way. For example, intuitive nursing informs EBP but not the other way around. Bidirectional arrows mean their relationship is mutual and they inform each other. As shown in Figure 1, the EBP serves as the core informed by RU and TR. The relationship of these three paradigms is bidirectional. Intuition and EBP relationship in the model is unidirectional because of the dearth and conflicting evidence supporting intuitive nursing in research uptake.

### The Verdict of the Compass to Follow

“The future of nursing science has never been brighter,” says Patricia Grady (2017 p. 247), the Director of the National Institute

Figure 1. Consilience in Evidence-Based Practice



of Nursing Research. In her guest editorial, she enumerated four nursing areas of scientific focus: symptom science, wellness, self-management, and the science of compassion. This scientific focus is believed to move nursing science to the future. If you try to tease these four agenda apart, noticeably is the need to focus on an authentic science as mentioned by Forbes *et al.* (1999). For instance, in symptom science expert nurses can develop and cluster symptoms in support of the nursing diagnosis. The clustered symptoms can't just be a textbook example but rather to consider the tested and corroborated experience or instincts of expert nurses over the years. These commonly unacknowledged factors are significant to advance nursing science. Following this compass means redirecting intuition to the unrequited direction.

A word of caution to nurse scientists. Alienating intuitive practitioner (whether novice or expert) of their current nursing practice could create indifference. If such indifference is nurtured, they could detach themselves in doing EBP. This is the reason why in Figure 1, the arrow is unidirectional. What nurse practitioners intuit must be recognized but must not be the sole basis of nursing actions. Still, I share this implicit contention with Grady (2017), that the future of nursing science belongs to EBP, but I do not discount the research by Lyneham *et al.* (2008) that intuition can be valid too. This article can be useful to nurses because it attempts to conceptually close the gap between what is happening and what should be happening. In developing countries like the Philippines whose nursing science is flourishing- context and implementer characteristics matters hugely.

### Implications for Nursing Practice, Education, and Research

The consilience EBP model as the future of nursing science recognizes the constraints present in nursing practice. That is

the acknowledgment of what is being used in the real nursing setting. Most nurses still use intuition as their guide to delivering nursing care (Pravikoff, Tanner, & Pierce, 2005). This model can be a basis to interlock what is happening and what is ideally expected. I assert that alienating intuitive nurses would create more gap in EBP rather than furthering the cause of quality nursing practice. In nursing education, the model could be used to advance teaching EBP in the beginning and advanced nurse scientists. The clarity offered by the model advances nursing education and science in general. Also, the model could supplement published articles pointed to more research uptake in the Philippines and worldwide such as Cura (2017).

### Summary

In summary, the similarities and differences of evidence-based practice, translational research, and research utilization were discussed. I provided arguments of the optimal strategy using evidence-based practice over intuition. I proposed the model of the consilience in evidence-based practice. The model interlocks evidence-based practice, translational research, and research utilization, with intuitive nursing. Following the compass pointing through north is the right way to take for nursing science. I argued that the consilience of EBP is our *raison d'être*, which can serve as the cornerstone of our science- the nursing science. Contemporary nursing science and its evolution to the future calls for prudence in selecting paradigm because it may dictate what we will hand to the future generation. As the former United Kingdom Prime Minister David Cameron (2016) said as he bows down in office, "I am [We are] the future once."

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