



Nurses' Perceived Readiness in Evidence-Based Practice: An Organizational Assessment

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Conflict of Interest

The authors declare that there is no conflict of interest.

Abstract

Background: Globally, nursing service departments of various hospitals encounter challenges in implementing Evidence-based Practice (EBP). Critical to the improvement of nursing outcomes is the practice of EBP. That is why EBP is considered a state of the art in the hospital organization. Organizational assessment, therefore, is needed to determine the hospital nursing service readiness in EBP.

Objective: The aims of the study are two-fold: (1) to identify the sources of nurses' knowledge and to determine the extent of knowledge-practice gap, skills, and attitude; and (2) to describe middle- and top-level managers of a hospital on evidence-based practice.

Methods: Descriptive, concurrent mixed-methods design was employed. The Promoting Action on Research Implementation in Health Services (PARIHS) model served as the theoretical framework where Context, Evidence, and Facilitation are considered important elements to the successful adoption of EBP. A survey questionnaire on EBP perceived knowledge, attitude, and practices by Malik et al. (2015) was responded to by 240 eligible staff nurses from a tertiary level, national government-funded hospital in the Philippines. The qualitative component of the study involved review of records, focus group discussions of seven middle managers, and structured interviews of four top level managers.

Results: The results revealed that the nursing service institution scored low to moderate readiness on evidence and facilitation elements of the framework, while moderate to high on contextual readiness on EBP. Three themes emerged in the qualitative data, namely: willingness to learn, research and EBP were difficult, and unmotivated to do EBP.

Conclusions: Nursing services of the institution point to the need to strengthen readiness on EBP. Of the three elements of the PARIHS framework, Context element scored favorable on EBP. The Evidence and Facilitation elements of the institution may need to be strengthened through the partnership between the academe and hospital.

Keywords: *evidence-based practice, Promoting Action on Research Implementation in Health Services (PARIHS)*

Background

Evidence-based practice (EBP) improves patient, nurse, and organizational outcomes (Memtsoudis et al., 2019). Despite the importance of EBP in improving hospital organizations, adoption remains difficult and complex. Various reasons for the complexity of the EBP adoption in health care points to lack of experienced mentors, resistance to change, organizational infrastructures, the dearth of resources, and weak to sometimes non-existent health research uptake policies (Shayan et al., 2019; Wang et al., 2021). Nurses, being the largest workforce in the hospital setting can have valuable impact on the implementation of EBP. However, a recent study by Masuda et al. (2020) showed that in the practice of EBP in maternal and childcare, there is a significant discrepancy between the latest scientific evidence and in the actual intrapartum practice. Paler and Cachaper (2021) found out that nurses may have appreciated EBP in nursing practice but there still is a need to strengthen their skills and organizational support. To ensure the success of EBP, it is vital to assess the readiness of nurses which can reverberate to the different levels of the institution.

Over the last five years, various research on EBP focused on measuring the nurses' knowledge, skills, attitude, and beliefs (Chan et al., 2020; Harper et al., 2017; Yousseff et al., 2018). Time and time again, the findings are almost similar in these studies. Nurses believed that EBP is essential in nursing practice but lacks the institutional resources and support system to adopt the approach. The major gap is that most scientific literature focus on the line-managers without looking at the perspectives of those executives who develop policy, maintain the vision of the institution, and who lead in the execution of strategic plans. The organizational readiness is essential to initiate, support, and sustain EBP (Pittman et al., 2019). Hospital policies, guidelines, and procedures usually operate from top-down direction. However, without the support of the line level managers, any changes instituted in the hospital will not come to fruition. So, both the top-, middle-, and line-level managers must work toward a common objective- adoption of EBP approach. Organizational assessment on EBP readiness must be done systematically and in all levels in the organization.

Yoo and colleagues (2019) indicate that despite nurses' positive level of EBP beliefs, adequate knowledge and implementation of latest evidence is insufficient. This may be attributed to the lack of readiness of the institution to EBP (Yoo et al., 2019). This situation calls for the need to assess the readiness of executive mid-level managers, and not only among the nurses on the bedside.

One strategy in the conduct of an organizational assessment is through a partnership between the hospital and the academe of which this study aimed to accomplish. The overall purpose of the study is to describe the organizational readi-

ness of top-managers, middle-managers, and staff nurses in EBP. Specifically, the aims are two-fold: (1) to identify the sources of nurses' knowledge and to determine the extent of knowledge-practice gap, skills, and attitude; and (2) describe middle- and top-level managers of a hospital on evidence-based practice.

Theoretical Framework

This study was primarily informed by the framework PARIHS or Promoting Action on Research Implementation in Health Services (Harvey et al., 2015). The PARIHS framework has three major elements: evidence, context, and facilitation. Harvey et al. (2015) partitioned the evidence into three namely: research, clinical experience, and patient preferences, while context includes culture, leadership, and measurement. In the study, the researchers assessed the extent of knowledge of the nurses on research, clinical experiences, as well as perceived patient preferences on EBP. Aside from best evidence and context, the framework suggests attention to facilitation (Kitson et al., 2008). Facilitation is the process used by an individual (i.e., the facilitator) to assist others change their attitudes, skills, or behaviors to improve the likelihood success of the intervention (Kitson et al., 1998). In the study, facilitation was largely assessed by the middle to high level managers as to the factors that facilitate EBP adoption. This framework implies that there must be coherent collaboration between the implementers and stakeholders.

Methods

Study Design

Descriptive, concurrent mixed-methods research design was employed in this study. This mixed-method research was guided by Creswell (2012) where corroboration of quantitative and qualitative data was made. Quantitative design was used to describe the nurses' sources of knowledge, knowledge-practice gap, skills, and attitude of staff nurses because numerical quantification can be a basis for initial assessment and progress in EBP. While qualitative designs on middle- and top-level managers to complement the assessment that numbers may not be able to capture like the experience and perceived barriers on EBP.

Setting and Sample

The setting of the study is a 500-bed capacity government hospital located at Benguet, Philippines, approximately 206 kilometers from Manila, which operates under the mandate of the Department of Health (DOH) of the country. The researchers secured the approval of the Institutional Ethics Review Committee (***** ERC 2016-07). The population of interest for the quantitative part of the study are the staff nurses of the hospital. The sample was chosen using the following inclusion criteria: registered nurse; 18 years old and above and employed with the institution. The exclusion criterion includes those who are on leave. Of the 358 poten-

tial participants, 299 participated, but 59 of whom did not complete the questionnaire, resulting in 240 respondents.

The researchers requested time after the monthly staff nurses meeting to explain the purpose of the study and the partnership between the hospital and the university. Informed consent was explained that participation is voluntary and that there are no repercussions if they choose not to participate in the study. Questions were entertained to ensure the shared understanding of the items. Participants were given adequate time to complete the questionnaire.

The sample for the qualitative part were the middle managers: nurse supervisors and ward managers ($n = 7$), who were selected through purposive sampling. The researchers approached the prospective participants then a schedule agreed by all was set for the focus group discussions. The four top-level managers (i.e., Medical Center Chief, Chief Nurse, and two Assistant Chief Nurses) participated in the focus group interview.

Data Collection and Data Analysis: Quantitative

The quantitative data was gathered using a questionnaire developed by Malik et al. (2015) (permission granted to researchers), which has a reliability of > 0.70 for each section. The Likert-type questionnaire consisted of four sections: sources of knowledge (with 9 items, assessment on the various sources of information used by nurses from scientific to non-scientific sources); knowledge-practice gap (5 items, assesses the specific steps of EBP), skills (10 items, assesses process of searching, appraising, and synthesizing evidence), and attitude (17 items, assesses beliefs and biases on EBP). Line managers or staff nurses were asked to rate the extent of their readiness on a scale from 1 to 5: knowledge (1 = never; 2 = seldom; 3 = sometimes; 4 = frequently; 5 = always), skills (1 = beginner; 2 = novice; 3 = quite skilled; 4 = competent, 5 = expert), and attitude (1 = strongly disagree; 2 = disagree; 3 = unsure; 4 = agree; 5 = strongly agree). Immediately after accomplishing the questionnaire, each submitted tool was reviewed for completeness and approached staff nurses if there are missed items. Aided by SPSS v. 20 (Chicago, IL, USA), data were plotted using frequency, percentage, median, and mode. The researchers followed the guidelines by Malik et al. (2015) on interpretation of the tool.

In ranking the organizational readiness on EBP, the work of Hill et al. (2017) was used as a reference. The article categorizes the readiness of an institution to EBP based on the PARIHS framework. An EBP-ready institution is perceived to be strong in evidence (i.e., robust research, supportive clinicians, and patient preferences incorporated in most aspects of care), contextually ready (i.e., strong leadership, innovative culture, and a regular performance audit) and facilitators are well-equipped (i.e., EBP champions viewed

as respectable and credible, clear roles, and adaptive implementation style). A mixed or moderate ready institution is described as evidence in moderation (i.e., research mostly descriptive or anecdotal, divided clinical experience, and some incorporation of patient preferences), context is unsure (mixed delineation of leadership role, some innovation is seen, and few performances auditing), and facilitators characteristic, role, and style is unclear. Finally, a low ready institution is known to show low evidence (i.e., weak research, unsupportive clinicians, and non-participative patients), unready context (i.e., poor leadership, morale is low, and performance feedback), and overall ill-defined facilitation (i.e., poor facilitator characteristics, undefined EBP roles, and unclear styles) (Hill et al., 2017).

Data Collection and Data Analysis: Qualitative

The other half of the research team conducted the qualitative data gathering. A letter of invitation to participate in the research was forwarded to the top-level managers (i.e., medical center chief, chief nurse, and two assistant chief nurses). Additionally, enclosed in the letter was a request for documented evidence of Philippine Department of Health (DOH) guidelines and institutional policies of the hospital related to EBP. Submitted documents were then reviewed, looking into discussions on the utilization of EBP approach. Institutional policies related to EBP projects were analyzed. Administrative orders from the DOH were cross-examined to look for process, incentives, and the role of EBP in promotion in the institution. Existing structures for mentoring and sustainability were reviewed with regards to EBP. The results were cross-referenced and validated in the interviews and focus group discussion (FGD).

One week after the letter of invitation was sent, researchers followed-up on the top-level managers' responses. When affirmative responses were given, the schedule was set for the interview. Informed consent was obtained. The top-level managers were purposively selected and were assigned pseudonyms TM1 for top level manager 1, TM2 for top level manager 2, and so forth. The four top-level managers were interviewed exploring the institutional readiness of EBP from attitude, resources, and organizational policy. The setting of the interview was in the top-managers' office. Interviews lasted for 45 minutes to 1 hour. After the interviews were conducted with the top-level managers, each was asked to nominate the most active middle-level managers in the hospital with regards to EBP.

One of the guide questions for the top-level managers was to nominate nurse supervisors (middle-level managers) who the top-managers think are EBP champions in the hospital. When top managers differ with their nomination, they were asked collectively to choose the names until consensus was reached leading to seven middle-level managers (nurse supervisors). Informed consents were secured. FGD was done

with seven ($n = 7$) nurse supervisors/ ward supervisors. To maintain anonymity, the researchers used the code names- NS1 for nurse supervisor 1, NS2 for nurse supervisor 2, and so forth. The FGDs took place at the hospital conference room which lasted for 1 to 1 ½ hours. There were nine people sitting in circle: seven were the supervisors and one facilitator (RCM-L) and one a notetaker (MTB). Initial neutral questions were asked during the FGD. Following, guided questions were asked in the FGD: (1) When you hear evidence-based practice, what are your thoughts? feelings? (2) What are the implemented projects on EBP? Barriers? Facilitating factors? (3) Roles in EBP? Explain. (4) What are your recommendations on EBP in the institution? (5) How do you bring staff nurses to EBP? Probing and follow-up questions were asked as needed. Further clarifications were conducted by approaching each individual participant for more information.

Establishing Rigor for the Qualitative Data

Credibility and auditability criteria proposed by Marshall et al. (2011) were used to establish the rigor of the qualitative data. In establishing credibility, method and data source triangulation were employed. The researchers attempted to get the perspective of the top- and middle-level managers of the institution. The use of iterative questioning, paraphrasing and probing questions were emphasized to describe the institutional readiness to EBP. Member checks were done by summarizing important themes at the end of the interview/ FGD. For auditability purposes, the researchers transcribed verbatim. The table was divided into four columns: line number, verbatim, summary statements, and themes. The line number started with 001, 002, 003, 004, until all verbatim were covered. This step ensured that the transcribed verbatim could easily be audited.

Before data gathering, informed consent was secured from all participants and was explained that participation was voluntary. Confidentiality was observed using pseudonyms. The study results were also communicated to the participants and stakeholders. The researchers and the top-level managers met to share the findings of the FGD.

Results

The results of this research were divided into two major sections: quantitative and qualitative. Quantitative results include sources of knowledge, knowledge-practice gap, skills, and attitude rating regarding EBP. Themes emerged from the qualitative findings based on identified enablers and barriers to EBP and included willingness to learn, research and EBP are difficult, and lack of incentive to do EBP.

Quantitative Findings

Source of Knowledge in Nursing Practice

Table 1 shows that the sources of knowledge are varied. More than half of the nurses (55.8%) base their practice

from the information taken directly from the patient. Frequently staff nurses used intuition ($n = 114$, 47.5%) which concurs with their experience as the source of knowledge ($n = 134$, 55.8%). One-hundred thirty-one (54.6%) of staff nurses tend to stick with their previous actions, some information is frequently gathered from co-workers ($n = 128$, 53.3%) while doctor information is frequently asked by 130 of the respondents. However, 93 (38.8%) nurses sometimes sought information from non-peer reviewed sources like magazines or television and the majority (42.9%) frequently consulted these media.

Knowledge-Practice Gap on EBP

As to the knowledge-practice gap, findings are presented in Table 1. The mode and the median of 4 interpreted as frequently. Majority of the staff nurses can frequently ($n = 111$, 46%) formulate an EBP question while one-hundred two (42.5%) sometimes do it. Moreover, most staff nurses (44.2%) frequently appraise research while 16 (6.7%) seldom checks the value of studies. More than half ($n = 129$) frequently integrate clinician expertise and best evidence while 22.9% sometimes evaluate the outcomes.

EBP Skills Rating

Most staff nurses described themselves as novice to quite skilled in EBP as reflected in Table 2. For instance, 69 (28.8%) are self-rated novice and 91 (37.9%) are quite skilled in finding research evidence. Thirty staff nurses consider themselves as beginner in performing comprehensive literature review. Self-rate evaluation of appraisal skills seems in consonance to earlier findings to which 35% were quite skilled but 21 were beginner as to locating information in the library. Often staff nurses are novice to quite skilled in seeking organizational protocols to inform their practice. Finally, 21 nurses are beginner in using research evidence to change practice.

Attitude on EBP

Table 3 shows the staff nurse's attitude towards EBP. One-hundred thirty-five (56.3%) of the staff nurses agree to stick to tried and tested methods rather than something new while 36.3% ($n = 87$) felt bad when their practice is questioned. Many of the staff nurses disagree as to understanding research articles. This result concurs with the frequently occurring score ($Mo = 4$) meaning that most agree that they do not want their nursing actions questioned while the point in a distribution above and below of the 50% cases fall is unsure ($Md = 3$). Majority (42.9%) of the staff nurses disagree as to the irrelevance of the research articles and 47.5% ($n = 114$) agree that they don't have sufficient time to search for evidence relevant to practice. More than half ($n = 146$) describe that research is paramount to the resources available but still 112 staff nurses disagree that EBP is a waste of time. Notably, 50% of the nurses are unsure about the difficulty with which they keep up with changes in their work. The

Table 1*Sources of Knowledge on EBP, N=240*

	Never		Seldom		Sometimes		Frequently		Always		Median	Mode
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%		
1. Information that I learn about each patient as an individual.	0	0	4	1.7%	38	15.8%	134	55.8%	64	26.7	4	4
2. My intuitions about what seems to be right for my patient.	2	.8%	9	3.8%	59	24.6%	114	47.5%	56	23.3%	4	4
3. My personal experience of caring for patients/clients over time.	0	0	4	1.7%	38	15.8%	134	55.8%	64	26.7%	4	4
4. The ways I have always done it.	1	.4%	3	1.3%	51	21.3%	131	54.6%	54	22.5%	4	4
5. Information my co-workers share.	1	.4%	3	1.3%	58	24.2%	128	53.3%	50	28.8%	4	4
6. What doctors discuss with me.	0	0	2	.8%	41	17.1%	130	54.2%	67	27.9%	4	4
7. Information I get from attending in-services/ training/ conferences.	0	0	0	0	27	11.3%	103	42.9%	110	45.8%	4	4
8. Information I get from policy and protocols.	0	0	0	0	29	12.1%	115	47.9%	96	40%	4	4
9. Information I get from:												
a) Articles published in medical journals.	0	0	13	5.4%	98	40.8%	103	42.9%	26	10.8%	4	4
b) Articles published in nursing journals.	0	0	15	6.3%	99	41.3%	98	40.8%	28	11.7%	4	3
c) Articles published in research journals.	0	0	15	6.3%	96	40%	105	43.8%	24	10%	4	4
d) Textbooks.	1	.4%	5	2.1%	55	22.9%	133	55.4%	46	19.2%	4	4
e) Internet.	1	.4%	4	1.7%	56	23.3%	122	50.8%	57	23.8%	4	4
f) Media (magazines, TV).	1	.4%	13	5.4%	93	38.8%	103	42.9%	30	12.5%	4	4
Knowledge-Practice Gap												
1. Formulated a clearly answerable question as the beginning of the process.	0	0	7	2.9%	102	42.5%	111	46.3%	20	8.3%	4	4
2. Tracked down the relevant evidence once formulated the question.	1	.4%	9	3.8%	95	39.6%	109	45.4%	26	10.8%	4	4
3. Critically appraised, against set criteria, any literature I have discovered.	0	0	16	6.7%	103	42.9%	106	44.2%	15	6.3%	4	4
4. Integrated the evidence I have found with my expertise.	1	.4%	8	3.3%	70	29.2%	129	53.8%	32	13.3%	4	4
5. Evaluated the outcomes of my practice.	2	.8%	5	2.1%	55	22.9%	134	55.8%	44	18.3%	4	4

Table 2

EBP Skills Rating, N = 240

	Beginner		Novice		Quite skilled		Competent		Expert		Median	Mode
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%		
1. Finding research evidence.	26	10.8%	69	28.8%	91	37.9%	51	21.3%	3	1.3%	4	4
2. Comprehensive literature review.	30	12.5%	62	25.8%	102	42.5%	46	19.2%	0	0	3	3
3. Critical appraisal skills.	29	12.1%	58	24.2%	84	35%	68	28.3%	1	.4%	3	3
4. Finding organizational information.	21	8.8%	60	25%	85	35.4%	71	29.6%	3	1.3%	3	3
5. Using the library to locate information.	16	6.7%	58	24.2%	93	38.8%	69	28.8%	4	1.7%	3	3
6. Using the internet to search the information.	8	3.3%	27	11.3%	80	33.3%	96	40%	29	12.1%	4	4
7. Reviewing research evidence.	22	9.2%	51	21.3%	90	37.5%	70	29.2%	7	2.9%	3	3
8. Reviewing organizational information (protocols/ guidelines).	24	10%	35	14.6%	96	40%	79	32.9%	6	2.5%	3	3
9. Using research evidence to change practice.	21	8.8%	42	17.5%	93	38.8%	80	33.3%	4	1.7%	3	3
10. Using organizational information to change practice.	22	9.2%	47	19.6%	85	35.4%	84	35%	2	.8%	3	3

Table 3

Staff Nurses Attitude on EBP, N = 240

	Strongly disagree		Disagree		Unsure		Agree		Strongly agree		Median	Mode
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%		
	1. I stick to tried and trusted methods rather than changing anything new.	6	2.5%	52	21.7%	30	12.5%	135	56.3%	17		
2. I resent having my practice questioned.	20	8.3%	74	30.8%	57	23.8%	87	36.3%	2	.8%	3	4
3. Much of the available research is not relevant to my professional practice.	19	7.9%	103	42.9%	49	20.4%	69	28.8%	0	0	2	2

		Strongly disagree		Disagree		Unsure		Agree		Strongly agree		Median	Mode
		n	%	n	%	n	%	n	%	n	%		
		4.	I find that research articles are not easily understood.	7	2.9%	99	41.3%	43	17.9%	85	35.4%		
5.	I don't have sufficient time to find research reports.	3	1.3%	61	25.4%	50	20.8%	114	47.5%	12	5%	4	4
6.	I believe in putting research into practice is to some extent dependent on how much is going to cost.	3	1.3%	42	17.5%	35	14.6%	146	60.8%	14	5.8%	4	4
7.	Evidence-based practice is a waste of time.	70	29.2%	112	46.7%	24	10%	33	13.8%	1	.4%	2	2
8.	I feel that there are benefits to changing my practice, based on research.	2	.8%	9	3.8%	22	9.2%	160	66.7%	47	19.6%	4	4
9.	I find compliance is a major factor in the use of evidence.	1	.4%	11	4.6%	15	6.3%	167	69.6%	46	19.2%	4	4
10.	I find it difficult to keep up all the work changes happening in my work environment at present.	6	2.5%	71	29.6%	50	20.8%	105	43.8%	8	3.3%	3	4
11.	I find it hard to influence changes to clinical practice in my work setting.	6	2.5%	71	29.6%	39	16.3%	114	47.5%	10	4.2%	4	4
12.	I would feel more confident if there was an individual experienced in research to supply me with relevant information.	1	.4%	4	1.7%	16	6.7%	171	71.3%	48	20%	4	4
13.	I would feel more confident if there was an individual experienced in research to supply me with relevant information.	56	23.3%	164	68.3%	16	6.7%	3	1.3%	1	.4%	2	2
14.	I would like to access current best evidence more often than I currently do.	37	15.4%	173	72.1%	20	8.3%	8	3.3%	2	.8%	2	2
15.	Research findings are often not easily transferable into my practice.	7	2.9%	52	21.7%	50	20.8%	112	46.7%	19	7.9%	4	4
16.	Evidence-based practice is fundamental to professional practice.	3	1.3%	4	1.7%	15	6.3%	145	60.4%	73	30.4%	4	4
17.	Implementing evidence-based practice will be of benefit to my professional development.	10	4.2%	2	.8%	13	5.4%	133	55.4%	82	32.2%	4	4

median to keeping up with the work and doing research is 3 interpreted as unsure. Most staff nurses (71.3%) disagree that mentoring would be helpful to increase their attitude on EBP. Staff nurses disagree on deluging themselves of best evidence more than their current practice. Surprisingly, a majority agree that research findings are not easily transferable to practice (46.7%), even though they are fundamental (60.4%) and beneficial to their practice (55.4%).

Qualitative Themes

Willingness to Learn

The top- and middle-level managers are provided a more accurate portrayal of the organizational readiness with regard to the context and facilitation. In the structured interview, TM1 is “very much willing” to partner in this program (between the hospital and the academe), as seconded by TM2 saying, “My people here are listening to me, I can use that as a tool to further the cause of improving patient outcomes.” TM2 quipped that they have the “100%” support for this partnership program between the academic institution and the hospital. The leadership seems ready to pour out their support on this partnership. In-depth data collection using records review showed that there is no EBP protocol followed by nurses except those that are related to the International Organization for Standardization (ISO) accreditation, continuous improvement accreditation for various industries including hospital to ensure that services meet excellent standards (Mohammad Mosadeghrad, 2014). The scope of ISO (2015) includes implementation of quality management system, customer confidence on services, and continuous training and assessment in quality management. As to measurement, they have a regular chart audit and feedback as ISO framed. An external audit by physicians and other allied health workers is also done based on the standards set forth by ISO. As to the records review, research committee is present but focuses on the role as members of the Institutional Ethics Review Board. No evidence of EBP projects has been presented.

TM4 revealed, “There is no EBP implementation here... but we are willing to learn.” TM1 shared this contention, saying that learning EBP would “improve the institution.” “As to how it’s done, how to formulate questions, appraising, but we are willing to learn the research skills,” TM3 added while NS5 summed up, “supportive training would help us.”

Research and EBP are Difficult

The TM1 stated that the institution is “not engaged” in any EBP implementation and that screening and evaluating research studies are filtered solely by their institutional ethics committee. The TM2 added that to put it quantitatively, the institution is about “60%” ready on EBP because nurses conduct research only in relation to postgraduate studies. There have been research initiatives but remained incom-

plete or unfinished. The “60%” statistics provided by TM2 is refuted by the FGDs of which NS3 said, “To my knowledge, we did not finish even one study. The closest we got was the shifting to 12-hour duty but was stopped by the DOH” because of ethical and administrative issues. Aside from the ethics committee, a research committee in the nursing service exists, but the policy and operating procedures are not well stipulated. When asked to provide committee protocols or policies regarding EBP or research utilization, the top managers admitted that these are not fully set or crafted. Embedded in the dearth EBP implementation is the lack of structure to support the sustained research adoption.

Despite these assertions, nurses believed that their present leadership and current efforts to bring organizational change and partnership with the non-government/ private organizations can facilitate the adoption of EBP. TM2 indicated that most staff nurses want EBP as their approach in nursing care, but the problem is where to start. Given that the researchers’ institution is perceived to be a credible academic institution, this advantage can be used as an anchor to private-public partnership. With this context, TM1 even wanted to sign the memorandum of agreement immediately which speaks of their willingness for this joint program. In the records review, the researchers found out that guidelines and protocols on EBP by the DOH are non-existent, at least to the knowledge of the nursing services leadership. The researchers counterchecked the presence of EBP protocol and guidelines in the DOH website (www.doh.gov.ph), and it turned out missing or unavailable.

Corroborating the quantitative result based in their actual practice, NS1 claimed, “We all base what we do on what we have been used to.” NS5 added, “The closest of evidence-based practice we had in the delivery room is the skin-to-skin contact” parallel to what NS2 added that in the Operating Room staff nurses, “use scrubless, only sterilium” during surgical hand washing. However, middle managers also shared that most of these evidence-based practices were instituted by physician and not nurses. On culture, the FGDs participants implied that they are not ready for the reason of work overload and their limited knowledge and skills in EBP. As NS3 noted, “....many of us are so difficult to change, they always reason that we always have done it like that. They tend to be very complacent in their work.” The rest of the nurse supervisors in the FGDs nodded in agreement with what NS3 stated. The learning culture is not cultivated according to the nurse supervisors. “Many of us just encountered research during our masters, and forgot about it,” NS3 added.

Unmotivated to do EBP

The findings from the FGDs show a certain degree of reluctance in research and EBP engagement due to the perception that it is an academic activity (and it does not involve them as clinicians). At the same time EBP involves much

thinking, time, and effort. There is a fear that engaging in EBP interferes with their primary function of providing bedside care to patients. NS1 exasperatedly said, "The truth is I don't like research," suggesting research aversion. This claim is mirrored to EBP aversion. When asked for reasons, middle managers mentioned difficulty to understand, lack of interest, and no incentives provided. TM4 said that the old system awards "2% salary increase" for those staff nurses who finished graduate studies, which is evaluated as "very small" compared to the bulk of work, effort, and resources it entails. This lack of interest in research is attributed by TM3 to the dearth of incentives and to the heavy workload of staff nurses. In the records review, the researchers found out that there are less than 100 books in their hospital library and all are outdated (published 10 years or more). The hospital does not subscribe to any electronic databases.

Discussion

The study contributes to nursing scholarship because it highlights the importance of looking at the different levels of the organization when it comes to EBP readiness. Looking in silos as revealed in the literature, that is, on the staff nurses' knowledge, skills, and attitude alone- the researcher posits are compartmentalized and is not reflective of what is happening in nursing practice. The study highlights the importance of an external partnership to determine the organizational readiness on EBP. Overall, the findings of this study point to the facilitators and barriers to the integration of EBP in nursing practice.

The sources of knowledge imply that nurses use a combination of research, protocol, colleagues, experience, intuition, and non-peer-reviewed materials as the bases for practice, which is similar to the findings of Malik et al. (2015). The research findings concur with previous studies of the difficulty incorporating EBP approach in the hospitals. For example, in China, Chen et al. (2020) found out that nurse managers believe in the value of EBP but lack the necessary organizational environment and knowledge to foster the approach in the nursing practice. The EBP implementers may need to first incorporate the approach in the institutional vision and mission. This way, the EBP approach will trickle down to the line-managers or staff managers.

The findings also coincide with that of Johansen et al. (2016), describing the nurse's use of knowledge as complicated. Despite increasing calls to base nursing practice on best evidence (Majers & Warshawsky, 2020), many nurses opt for non-scientific sources. An intervention not based on substantial scientific evidence could not only be replicable and could lead to lethal consequences both to the patients and nurses. Albano et al. (2014) found that health workers who based their decision on non-scientific journals have a professional's higher risk of acquiring infections. This observation implies giving importance to being careful about

sifting information to be used in nursing practice. The finding can be related to one of the qualitative themes of this research, i.e., nurses are aversive in making rigorous scientific processes and it was not reinforced by the institution. Going back to the Harvey et al. (2015) continuum- along with evidence, the institution seems to have an inconsistent view on clinical experience and patients, nurses fall in between low to moderate evidence (Hill et al., 2017). The lack of actual studies conducted by nurses supports the low to moderate description. Moreover, patient preferences are incorporated only in some aspects of nursing care while the institution is not fully equipped with open and web resources in the hospital library. The finding implies that based on PARIHS framework the institution evidence (i.e., research, patient preferences, and clinician experience) element could be from low to moderate readiness.

The status of the majority of staff nurses demonstrating novice to quite skills on EBP necessitates the call of stronger partnership between the academic institution and the hospital. Developing a program that benefits both institutions can be grounded based on these findings. Most staff nurses find comprehensive literature review and appraisal lacking that could be refined by partnership training between the two institutions. The qualitative findings show that nurses had not completed an EBP project therefore nothing was implemented. The culture, to some extent, does not value research while the leadership is willing to take the risk and pour support into the partnership. This finding is made evident by the institution's willingness to undergo external accreditation, suggesting a mission to transform the organization and not settle on status quo. The resources are lacking, such as a good library and access to databases but this limited access to information resources is compensated by the willingness of the academic institution to lend the researchers subscribed electronic databases with direct supervision.

As to facilitation, nurses seem to be on a low to moderate level of EBP readiness. This finding may be attributed to the apprehension of many nurses towards EBP. Undeniably, the top-level managers exhibit respect, credibility, and empathy to the staff nurses; however, based on the record's review, the research committee's role is unclear with regards to EBP. The willingness to learn by the top-level, middle-level, and line-level managers suggests some flexibility and adaptability. Overall, the PARIHS framework can be used to describe organizational readiness on EBP.

Limitations

The study may be susceptible to single institution bias given that the study was conducted in one institution. The high rating on the questionnaire could have been affected also by social desirability bias. Notably, 34.6% of the total respondents are Job Orders. Nurses on a Job Order basis are renewed (or not) every five months by the DOH. This

temporary job situation could question their ability to fully engage on EBP which requires time and effort plus long-term commitment to improve patient and organizational outcomes. Finally, the descriptive design of this study does not render causal inferences.

Conclusions

The study shows that nurses may not be ready for evidence-based practice adoption. Of the three elements based on the PARIHS framework, only the context seems ready to the partnership between the academe and hospital. This condition is an avenue to strengthen the EBP capability in the institution.

Using the PARIHS framework, the researchers inferred that there is an overall low to moderate readiness. It may be a manifestation of the relative infancy of nursing research in their nursing services, lack of EBP institutional and country-wide guidelines and unavailability of EBP protocols. The clinical experience may need enrichment while the sources of knowledge be directed to scientific origins. As to the context, there is strong leadership support by the top-level managers, presence of measurement tools as ISO accreditation mandates, while the culture is uncertain on research. The apprehension on EBP by the middle-managers and staff nurses can be changed by the strong leadership support seen from the top-level managers. Yet at the moment, with the weak to moderate contextual readiness, it will benefit much with updates and enrichment. EBP is one way to improve patient outcomes. However, if nurses are not fully equipped and policies are not ready, efforts to promote EBP will not come to fruition. The policy should enhance their knowledge, skills, and attitude on EBP, and there is a need to explicitly stipulate in the protocol and support nurses who are doing EBP projects. Incentives could be given to implementers, while EBP policies can be created to ensure sustainability.

References

- Albano, L., Matuozzo, A., Marinelli, P., & Di Giuseppe, G. (2014). Knowledge, attitudes, and behaviour of hospital health-care workers regarding influenza A/H1N1: A cross sectional survey. *BioMed Central Infectious Diseases, 14*, 208. <https://doi.org/10.1186/1471-2334-14-208>
- Chan, E. Y., Glass, G. F., & Phang, K. N. (2020). Evaluation of a hospital-based nursing research and evidence-based practice mentorship program on improving nurses' knowledge, attitudes, and evidence-based practice. *The Journal of Continuing Education in Nursing, 51*(1), 46-52. <https://doi.org/10.3928/00220124-20191217-09>
- Chen, L., Wu, Y., Zhou, C., Li, X., & Zhao, H. (2020). Value, knowledge, and implementation on evidence-based practice among nurse managers in China: A regional cross-sectional survey. *Journal of Nursing Management, 28*(1), 139-147. <https://doi.org/10.1111/jonm.12907>
- Creswell, J. (2012). *Educational research planning, conducting, and evaluating quantitative and qualitative research*. Pearson Education Inc.
- Harper, M. G., Gallagher-Ford, L., Warren, J. I., Troseth, M., Sinnott, L. T., & Thomas, B. K. (2017). Evidence-based practice and US healthcare outcomes: Findings from a national survey with nursing professional development practitioners. *Journal for Nurses in Professional Development, 33*(4), 170-179. <https://doi.org/10.1097/NND.0000000000000360>
- Harvey, G., & Kitson, A. (2015). *Implementing evidence-based practice in healthcare: A facilitation guide*. Routledge.
- Hill, J. N., Guihan, M., Hogan, T. P., Smith, B. M., LaVela, S. L., Weaver, F. M., Anaya, H. D., & Evans, C. T. (2017). Use of the PARIHS framework for retrospective and prospective implementation evaluations. *Worldviews on Evidence-Based Nursing, 14*(2), 99-107. <https://doi.org/10.1111/wvn.12211>
- International Organization for Standardization. (2015). *ISO 9000:2015*. <https://www.iso.org/obp/ui/#iso:std:iso:9000:ed-4:v1:en>
- Johansen, M., & O'Brien, J. (2016). Decision making in nursing practice: A concept analysis. *Nursing Forum, 51*, 40-48. <https://doi.org/10.1111/nuf.12119>
- Kitson, A., Harvey, G., & McCormack, B. (1998). Enabling the implementation of evidence-based practice: A conceptual framework. *Quality in Health Care, 7*, 149-158.
- Kitson, A. L., Rycroft-Malone, J., Harvey, G., McCormack, B., Seers, K., & Titchen, A. (2008). Evaluating the successful implementation of evidence into practice using the PARIHS framework: Theoretical and practical challenges. *Implementation Science, 3*(1). <https://doi.org/10.1186/1748-5908-3-1>
- Majers, J. S., & Warshawsky, N. (2020). Evidence-based decision-making for nurse leaders. *Nurse Leader, 18*(5), 471-475. <https://doi.org/10.1016/j.mnl.2020.06.006>
- Malik, G., McKenna, L., & Plummer, V. (2015). Perceived knowledge, skills, attitude, and contextual factors affecting evidence-based practice among nurse educators, clinical coaches, and nurse specialists. *International Journal of Nursing Practice, 21*, 46-57. <https://doi.org/10.1111/ijn.12366>
- Marshall, C., & Rossman, G. (2011). *Designing qualitative research*. Sage Publications Inc.

- Masuda, C., Ferolin, S. K., Masuda, K., Smith, C., & Matsui, M. (2020). Evidence-based intrapartum practice and its associated factors at a tertiary teaching hospital in the Philippines, a descriptive mixed-methods study. *BMC Pregnancy and Childbirth*, *20*(1), 78. <https://doi.org/10.1186/s12884-020-2778-5>
- Memtsoudis, S. G., Poeran, J., & Kehlet, H. (2019). Enhanced recovery after surgery in the United States: From evidence-based practice to uncertain science? *Journal of the American Medical Association*, *321*(11), 1049-1050. <https://doi.org/10.1001/jama.2019.1070>
- Mohammad Mosadeghrad, A. (2014). Why TQM does not work in Iranian healthcare organizations. *International Journal of Health Care Quality Assurance*, *27*, 320-335. <https://doi.org/10.1108/IJHCQA-11-2012-0110>
- Paler, C. & Cachaper, G. (2021). Evidence-based practice: Are nurses ready? *Journal of Nursing Practice Applications & Reviews of Research*. *11*(1), 43-50. <https://doi.org/10.12178/jnparr.2021.11.01.1006>
- Pittman, J., Cohee, A., Storey, S., LaMothe, J., Gilbert, J., Bakoyannis, G., Ofner, S. & Newhouse, R. (2019). A multisite health system survey to assess organizational context to support evidence-based practice. *Worldviews on Evidence-Based Nursing*, *16*(4), 271-280. <https://doi.org/10.1111/wvn.12375>
- Rycroft-Malone, J., Seers, K., Chandre, J., Hawkes, C. A., Crichton, N., Allen, C., Bullock, I., & Strunin, L. (2013). The role of evidence, context, and facilitation in an implementation trial: Implications for the development of the PARIHS framework. *Implementation Science*, *8*(28). <https://doi.org/10.1186/1748-5908-8-28>
- Shayan, S. J., Kiwanuka, F., & Nakaye, Z. (2019). Barriers associated with evidence-based practice among nurses in low-and middle-income countries: A systematic review. *Worldviews on Evidence-Based Nursing*, *16*(1), 12-20. <https://doi.org/10.1111/wvn.12337>
- Wang, M., Zhang, Y. P., & Guo, M. (2021). Development of a cadre of evidence-based practice mentors for nurses: What works?. *Worldviews on Evidence-Based Nursing*, *18*(1), 8-14. <https://doi.org/10.1111/wvn.12482>
- Yoo, J. Y., Kim, J. H., Kim, J. S., Kim, H. L., & Ki, J. S. (2019). Clinical nurses' beliefs, knowledge, organizational readiness and level of implementation of evidence-based practice: The first step to creating an evidence-based practice culture. *PloS one*, *14*(12), e0226742. <https://doi.org/10.1371/journal.pone.0226742>
- Youssef, N. F., Alshraifeen, A., Alnuaimi, K., & Upton, P. (2018). Egyptian and Jordanian nurse educators' perception of barriers preventing the implementation of evidence-based practice: A cross-sectional study. *Nurse Education Today*, *64*, 33-41. <https://doi.org/10.1016/j.nedt.2018.01.035>