

## Knowledge, Attitude and Practice Regarding Evidence Based Practice among Nurses in Teaching Hospital, Chitwan

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**Abstract:** Evidence-based practice (EBP) is important in improving the health care quality. The aim of the study is to assess the knowledge, attitude and practice regarding evidence-based practice among nurses at teaching hospital, Chitwan. A descriptive cross-sectional design was used to select 88 nurses who have completed bachelors' level in nursing by using enumerative sampling technique. 24 –items self-reported EBP Questionnaire developed by Upton et al. was used to assess the knowledge, attitude and practice regarding evidence-based practice among nurses. Data were collected from July to August 2019 and analyzed by using descriptive and inferential statistics. Majority (63.6%) of the respondents were  $\leq 25$  years of age, 54.5% unmarried and 87.5% were from Bharatpur. Regarding education, 51.1% had completed Bachelor of Science in Nursing, 80.7% were working as staff nurse, 68.2% respondents worked in critical areas and 55.4% had work experience of  $\leq 24$  months. Majority of the respondents (73.9%) had inadequate knowledge, 69.3% respondents had negative attitude and 71.6% respondents had poor practice regarding evidence-based practice. There was statistical significant association between respondents' level of practice regarding evidence-based practice and opportunity to participate in research related activities ( $p=0.006$ ). There is also a strong relationship between knowledge, attitude and practice regarding evidence-based practice among respondents. Above findings showed that there is need for evidence-based practice not only to improves quality of health services, but also to reduce its costs, increases the staff productivity, helps in making clinical decision and also contributes to the development in the field of nursing which results in achieving excellence in patient care.

**Key words:** Attitude, Evidence-based, Knowledge, Nurses, Practice

Date of Submission: 17-12-2019

Date of Acceptance: 31-12-2019

### I. Introduction

Evidence based practice (EBP) is the conscientious, explicit and judicious use of current best evidence in making decisions about the care of the individual patient.<sup>[1]</sup> EBP is a patient-centered approach based on independent scientific research, clinical expertise and patient experiences. Healthcare providers including nurses who utilize this approach must consider the recent health care research when providing the holistic care and treatment to the patients.<sup>[2]</sup> EBP is based on the combination of the best research evidence with clinical expertise to help in making clinical decision. Patients who receive evidence-based therapies have better outcomes than those who do not received the therapies.<sup>[3]</sup> Nurses utilize evidence-based practice in order to evaluate their skills, develop and implement policies and procedures, carrying out effective clinical interventions, and prepare care plans to enhance positive outcomes for patients.<sup>[4]</sup> EBP is important as it helps the nurse to 'bridge the divide' between research and practice via improvement of clinical care on the basis of the evidence regarding best practice. Clinical nurses are expected to go through and review the research evidence, nursing experience and consider patient's preferences while making professional decisions.<sup>[5]</sup> The goal of evidence-based nursing is to provide evidence-based data to deliver quality care based on the appropriate research, solving the clinical problems, providing excellence nursing service, even exceeding quality assurance standards and to introduce innovation.<sup>[6]</sup> Evidence-based practice being a critical element to improve quality of health services and achieving excellence in patient care is still challenging in clinical environments. One of the most important barriers to implement EBP is knowledge deficit of the care provider.<sup>[7]</sup> In the clinical area, reason behind 28% of improvement in patient outcomes was based on evidence rather than traditional practices.<sup>[8]</sup> As patient safety is most important, health care professionals along with traditional and well-established procedures and practices, are adopting innovative interventions based on the best practices as well as research-based evidence.<sup>[9]</sup> Nurses are facing challenges in integrating evidence-based practice into nursing care. Though the nurses are quite familiar with research utilization, they are not familiar with developing good search strategies, identifying the

best databases, or doing critical appraisals. Oftentimes, nurses think they are using evidence-based nursing when, in fact, they are utilizing isolated research results.<sup>[10]</sup> Evidence based practice helps nurses to facilitates sound decision making, minimizing the risk to the patients, minimizes the gaps between knowledge and practice with good attitude to provide quality care to the patients for their better outcomes. There are few studies done in Nepal to find out the knowledge, attitude and practice regarding evidence-based practice among nurses. So, researchers aimed to conduct this study.

## II. Material and Methods

Descriptive cross-sectional research design was used for this study to assess the knowledge, attitude and practice regarding evidence-based practice among 88 nurses of Chitwan Medical College Teaching Hospital (CMCTH) working either in general or critical areas at Chitwan who were selected by using enumerative sampling method. Prior to data collection, ethical clearance was obtained from Chitwan Medical College Institutional Review Committee (CMC- IRC). Data collection permission was taken from the authorities of teaching hospital of Chitwan and verbal informed consent was taken from each respondent prior to data collection after explaining the purpose of the study. Data collection was taken in a different ward of CMCTH where researcher herself distributed the questionnaire. This self-administered questionnaire consisted of two parts. Part I includes demographic and profession related information and Part II includes 24 –item self-reported Evidenced-Based Practice (EBP) Questionnaire developed by Upton et al.<sup>[11]</sup> which is a validated tool that measures the knowledge, attitude and practice regarding evidence-based practice. This tool has three subscales: practice of EBP, attitudes towards EBP, and knowledge of skills associated with EBP. The practice subscale has six items, the attitude subscale has four items, and the knowledge subscale has 14 items. All items are scored from one to seven with a higher score indicating a more positive attitude towards EBP, greater use (practice), and good knowledge of EBP respectively. Each subscale, of these three subscales, can be totaled. Therefore, the total score for the practice subscale can range from 6-42, for the knowledge subscale from 14-98 and for the attitude subscale can range from 4-28. The reliability of the research instrument was checked by conducting pre-testing in 10% of the total sample size at College of Medical Sciences, Bharatpur which is also renowned medical college and teaching hospital of Chitwan. The internal consistency of the instrument was established by cronbach’s alpha which was 0.91. Each respondent was given 20-25 minutes to complete the questionnaire and researcher herself collected the questionnaire immediately after completion on the same day. Data collection was done from July to August 2019.

The collected data was checked, reviewed and organized daily for accuracy and completeness. The organized data was entered by using IBM Statistical Package for Social Science (SPSS) version 20.0. The data was further analyzed by using descriptive statistics (frequency, percentage, mean, median and standard deviation) and inferential statistics (Chi-square test and fisher’s exact test) was used to measure the association between the variables. Spearman’s Rho Correlation was used to find the correlation between respondents’ knowledge, attitude and practice regarding evidence-based practice. The findings of the study were presented in different tables.

## III. Results

**Table1:** Respondents’ Socio-demographic Characteristics

Variables	Frequency	Percentage
n=88		
Age group (in years)		
≤25	56	63.6
>25	32	36.4
Median=25, IQR= Q <sub>3</sub> -Q <sub>1</sub> =27- 24, Min=22 and Max=50		
Place of residence		
Chitwan	77	87.5
Nawalpur	8	9.2
Makawanpur	1	1.1
Lamjung	1	1.1
Sarlahi	1	1.1
Marital status		
Married	40	45.5
Unmarried	48	54.5
Academic qualification		
Bachelor of Nursing Science (BNS)	43	48.9
Bachelor of Science in Nursing (B.Sc. Nursing)	45	51.1
Designation		
Nursing officer	17	19.3
Staff nurse	71	80.7
Current working ward		
General	28	31.8
Critical	60	68.2

Work Experience (in months)		
≤24	49	55.7
>24	39	44.3
Median=24 months		

Table 1 reveals the socio-demographic characteristics of 88 respondents which shows that 63.6% of the respondents were in the age group less than and equals to 25 years and 36.4 % were in age group more than 25 years. Regarding place of residence, majority of the respondents 87.5% were from Chitwan. Concerning marital status, 54.5% of the respondents were unmarried and 45.5% of the respondents were married.

Regarding academic qualification, more than half of the respondents (51.1%) had done B.Sc. Nursing and 48.9% of the respondents had completed BNS course. Majority of the respondents were currently working as staff nurse in the hospital and only 19.3% were working as nursing officer. Concerning the currently working wards, 68.2% of the respondents were currently working in critical wards which includes Medical intensive care unit, surgical intensive care unit, neonatal and pediatric intensive care unit, emergency, operation theater units whereas 31.8% of the respondents were working in general wards which include medical, surgical, orthopedic, pediatric, gynecology and obstetrics ward, neuro ward, psychiatric, Ear, Nose and Throat ward, cabin wards. Regarding the work experiences, more than half of the respondents (55.7%) had work experience of less than and equal to 24 months.

**Table 2: Respondents' Research related Variables**

Variables	Frequency	Percentage
n=88		
Participate in research related in-service education		
Yes	32	36.4
No	56	63.6
Participate in research related conference/seminar		
Yes	19	21.6
No	69	78.4
Conducted research (in times)		
One	79	89.8
Two	9	10.2
Availability of library facility in organization		
Yes	87	98.9
No	1	1.1
Availability of internet facility in organization		
Yes	80	90.9
No	8	9.1
Habits of reading journals		
Monthly	44	50
Yearly	26	29.5
Never	12	13.6
Sometimes	6	6.9
Research activities conducted by organization		
Yes	76	86.4
No	12	13.6
Opportunities to participate in organization's research activities		
Yes	43	48.9
No	45	51.1

Table 2 shows the research related variables among 88 respondents, which shows that 63.6% of the respondents had not participated in research related in-service education. Regarding participation in research related conference/seminar, 78.4% of the respondents had not participated in any of the conference and seminar. Majority of the respondents (89.9%) had conducted research at least one time.

Majority of the respondents (98.9%) knew about the library facility available in an organization and similarly 90.9% of the respondents were aware about internet facility available in and organization they are currently working in. Concerning habits of reading journals, half of the respondents were reading it monthly and 6.9% of the respondents were reading journals sometimes. 86.4% of the respondents were aware about the research related activities conducted by organization and only 48.9% of the respondents got opportunities to participate in organization's research related activities.

**Table 3:** Respondents' Level of Knowledge, Attitude and Practice regarding Evidence based Practice

Variables	Frequency	Percentage
n=88		
<b>Level of Knowledge</b>		
Adequate	23	26.1
Inadequate	65	73.9
<b>Level of Attitude</b>		
Positive	27	30.7
Negative	61	69.3
<b>Level of Practice</b>		
Good	25	28.4
Poor	63	71.6

Table 3 shows respondents' level of knowledge, attitude and practice regarding evidence-based practice among 88 respondents. It concludes that 73.9% of the respondents had inadequate knowledge, 69.3% of the respondents had negative attitude and 71.6% of the respondents had poor practice regarding evidence-based practice.

**Table 4:** Association of Demographic Variables with Respondents' Level of Knowledge regarding Evidence based Practice

Variables	Adequate		$\chi^2$	P-value
	No.(%)	Inadequate No.(%)		
n=88				
Age group (in years)				
≤25	17(30.4)	39(69.6)	1.421	0.233
>25	6(18.8)	26(81.2)		
Academic qualification				
Bachelor of Nursing Science (BNS)	13(30.2)	30(69.8)	0.731	0.393
Bachelor of Science in Nursing (B.Sc. Nursing)	10(22.2)	35(77.8)		
Designation				
Nursing officer	6(35.3)	11(64.7)	0.915	0.366 <sup>#</sup>
Staff nurse	17(23.9)	54(76.1)		
Work Experience (in months)				
≤24	14(28.6)	35(71.4)	0.340	0.560
>24	9(23.1)	30(76.9)		
Current working ward				
General	7(25.0)	21(75.0)	0.27	0.868
Critical	16(26.7)	44(73.3)		
Got in-service education				
Yes	9(28.1)	23(71.9)	0.103	0.748
No	14(25.0)	42(75.0)		
Attended conference or seminar				
Yes	6(31.6)	13(68.4)	0.372	0.564 <sup>#</sup>
No	17(24.6)	52(75.4)		
Conducted research				
One time	21(26.6)	58(73.4)	0.080	1.000 <sup>#</sup>
Two times	2(22.2)	7(77.8)		
Library facility in organization				
Yes	23(26.4)	64(73.6)	N/A	N/A
No	0(0.0)	1(100.0)		
Internet facility in organization				
Yes	22(27.5)	58(72.5)	0.848	0.675 <sup>#</sup>
No	1(12.5)	7(87.5)		
Habits of reading journals				
Sometimes	21(27.6)	55(72.4)	0.645	0.724 <sup>#</sup>
Never	2(16.7)	10(83.3)		
Organization conducting research related activities				
Yes	20(26.3)	56(73.7)	0.009	1.000 <sup>#</sup>
No	3(25.0)	9(75.0)		
Opportunity to participate in research related activities				
Yes	12(27.9)	31(72.1)	0.137	0.712
No	11(24.4)	34(75.6)		

Significance level at 0.05

<sup>#</sup>Fisher's exact test

Table 4 reveals that there was no statistical significant association between respondents' level of knowledge regarding evidence based practice and age group (p=0.233), academic qualification (p=0.393), designation (p=0.366), work experience (p=0.560), currently working ward (p=0.868), getting in-service education (p=0.748), attending seminar and conferences (p=0.564), conducting research (p=1.000), availability of internet facilities (p=0.675), habits of reading journals (p=0.724), awareness regarding research related activities conducted by organization (p=1.000) and opportunity to participate in research related activities (p=0.712).

**Table 5:** Association of Demographic Variables with Respondents' Level of Attitude regarding Evidence based Practice

n=88

Variables	Positive	Negative	$\chi^2$	P-value
	No.(%)	No.(%)		
Age group (in years)				
≤25	20(35.7)	36(64.3)	1.834	0.176
>25	7(21.9)	25(78.1)		
Academic qualification				
Bachelor of Nursing Science (BNS)	14(32.6)	29(67.4)	0.139	0.709
Bachelor of Science in Nursing (B.Sc. Nursing)	13(28.9)	32(71.1)		
Designation				
Nursing officer	7(41.2)	10(58.8)	1.091	0.296
Staff nurse	20(28.2)	51(71.8)		
Work Experience (in months)				
≤24	18(36.7)	31(63.3)	1.905	0.168
>24	9(23.1)	30(76.9)		
Current working ward				
General	6(21.4)	22(78.6)	1.653	0.199
Critical	21(35)	39(65)		
Got in-service education				
Yes	10(31.2)	22(68.8)	0.008	0.930
No	17(30.4)	39(69.6)		
Attended conference or seminar				
Yes	5(26.3)	14(73.7)	0.217	0.641
No	22(31.9)	47(68.1)		
Conducted research				
One time	25(31.6)	54(68.4)	0.337	0.716 <sup>#</sup>
Two times	2(22.2)	7(77.8)		
Library facility in organization				
Yes	27(31)	60(69)	N/A	N/A
No	0(0.0)	1(100.0)		
Internet facility in organization				
Yes	25(31.2)	55(68.8)	0.134	1.000 <sup>#</sup>
No	2(25.0)	6(75.0)		
Habits of reading journals				
Sometimes	24(31.6)	52(68.4)	0.211	0.748 <sup>#</sup>
Never	3(25.0)	9(75.0)		
Organization conducting research related activities				
Yes	25(32.9)	51(67.1)	1.283	0.330 <sup>#</sup>
No	2(16.7)	10(83.3)		
Opportunity to participate in research related activities				
Yes	15(34.9)	28(65.1)	0.698	0.403
No	12(26.7)	33(73.3)		

Significance level at 0.05

<sup>#</sup>Fisher's exact test

Table 5 reveals that there was no statistical significant association between respondents' level of attitude regarding evidence based practice and age group (p=0.176), academic qualification (p=0.709),

designation (p=0.296), work experience (p=0.168), currently working ward (p=0.199), getting in-service education (p=0.930), attending seminar and conferences (p=0.641), conducting research (p=0.716), availability of internet facilities (p=1.000), habits of reading journals (p=0.748), awareness regarding research related activities conducted by organization (p=0.330) and opportunity to participate in research related activities (p=0.403).

**Table 6:** Association of Demographic Variables with Respondents' Level of Practice regarding Evidence based Practice

n=88

Variables	Good	Poor	$\chi^2$	P-value
	No.(%)	No.(%)		
Age group (in years)				
≤25	16(28.6)	40(71.4)	0.002	0.964
>25	9(28.1)	23(71.9)		
Academic qualification				
Bachelor of Nursing Science (BNS)	12(27.9)	31(72.1)	0.010	0.919
Bachelor of Science in Nursing (B.Sc. Nursing)	13(28.9)	32(71.1)		
Designation				
Nursing officer	6(35.3)	11(64.7)	0.491	0.553 <sup>#</sup>
Staff nurse	19(26.8)	52(73.2)		
Work Experience (in months)				
≤24	12(24.5)	37(75.5)	0.835	0.361
>24	13(33.3)	26(66.7)		
Current working ward				
General	8(28.6)	20(71.4)	0.001	0.982
Critical	17(28.3)	43(71.7)		
Got in-service education				
Yes	10(31.2)	22(68.8)	0.200	0.655
No	15(26.8)	41(73.2)		
Attended conference or seminar				
Yes	6(31.6)	13(68.4)	0.120	0.729
No	19(27.5)	50(72.5)		
Conducted research				
One time	24(30.4)	55(69.6)	1.475	0.436 <sup>#</sup>
Two times	1(11.1)	8(88.9)		
Library facility in organization				
Yes	25(28.7)	62(71.3)	N/A	N/A
No	0(0.0)	1(100.0)		
Internet facility in organization				
Yes	23(28.8)	57(71.2)	0.050	1.000 <sup>#</sup>
No	2(25.0)	6(75.0)		
Habits of reading journals				
Sometimes	24(31.6)	52(68.4)	2.753	0.167 <sup>#</sup>
Never	1(8.3)	11(91.7)		
Organization conducting research related activities				
Yes	23(30.3)	53(69.7)	0.942	0.496 <sup>#</sup>
No	2(16.7)	10(83.3)		
Opportunity to participate in research related activities				
Yes	18(41.9)	25(58.1)	7.481	<b>0.006</b>
No	7(15.6)	38(84.4)		

Significance level at 0.05

<sup>#</sup>Fisher's exact test

Table 6 reveals that there was statistical significant association between respondents' level of practice regarding evidence-based practice and opportunity to participate in research related activities (p=0.006) which means that those who got opportunity to participate in research related activities conducted by organization have good practice in EBP than those who do not participate.

But there was no statistical significant association between respondents' level of practice regarding evidence based practice and age group (p=0.964), academic qualification (p=0.919), designation (p=0.553), work experience (p=0.361), currently working ward (p=0.982), getting in-service education (p=0.655), attending

seminar and conferences (p=0.729), conducting research (p=0.436), availability of internet facilities (p=1.000), habits of reading journals (p=0.167) and awareness regarding research related activities conducted by organization (p=0.496).

**Table 7:** Spearman's Rho Correlation between Respondents' Knowledge, Attitude and Practice regarding Evidence based Practicen=88

Variables	Knowledge	Attitude	Practice
Knowledge score	1		
Attitude score	R=0.221*	1	
	p=0.038		
Practice score	R=0.313**	R=0.455**	1
	p=0.003	p<0.001	

\*\* Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

Table 7 shows that there is a strong relationship between knowledge, attitude and practice regarding evidence-based practice among respondents which means if the respondents have adequate knowledge regarding EBP then their attitude and practice is also positive and good respectively. Similarly, if there is positive attitude regarding EBP in respondents then they are keen to learn about EBP both theoretically and practically and vice-versa.

#### IV. Discussion

The analysis of the demographic variables revealed that out of 88 respondents, 63.6% of the respondents fall under the age group of ≤25 years, 54.5% respondents were unmarried and were from Bharatpur (87.5%). More than half of the respondents (51.1%) had completed Bachelor of Science in Nursing (B.Sc. Nursing) course. Majority of the respondents (80.7%) were working as staff nurse and 68.2% respondents worked in critical areas. Regarding total working experience, 55.4% of the respondents' have ≤24 months.

Concerning level of knowledge, 73.9% of the respondents had inadequate knowledge. The finding is not supported by the study conducted by Mehrdad, Joolae, Joolae, and Bahrani (2012)<sup>[12]</sup> which revealed that 42.9% of the respondents had low level of knowledge regarding EBP. Another study that doesn't support this finding is by Paulose et. al. (2016)<sup>[9]</sup> which concluded that 6.8% of nurses had poor knowledge on EBP. The findings of the study revealed that 69.3% of the respondents had negative attitude regarding EBP. This findings is not supported by the study conducted by Mehrdad, Joolae, Joolae and Bahrani (2012)<sup>[12]</sup> which showed that 88.6% of the respondents held positive attitudes toward EBP. This finding is in contrast with the study by Manjula, Srivastava and Dorle (2018)<sup>[3]</sup> which stated that majority of the respondents had positive attitudes towards EBP. Regarding level of practice, 71.6% of the respondents had poor practice regarding EBP which is similar to the study conducted by Heydari, Mazlom, Ranjbar, Scurlock-Evans (2014)<sup>[13]</sup> which revealed that 83.3% of the respondents had poor practice regarding EBP.

The study findings revealed that there was statistical significant association between respondents' level of practice regarding evidence-based practice and opportunity to participate in research related activities (p=0.006) which means that those who got opportunity to participate in research related activities conducted by organization have good practice in EBP than those who do not participate. This finding is supported by the study conducted by Perez-Campos, Sanchez-Garcia, Pancorbo-Hidalgo (2014)<sup>[14]</sup> which showed greater EBQP competence among nurses who participated in congresses, conferences, or seminars on research methodology (p<0.001).

There is a strong relationship between knowledge-attitude (p=0.038), knowledge-practice (p=0.003) and practice-attitude (p<0.001) regarding evidence-based practice among respondents. This finding is supported by the study conducted by Salem, Alamrani and Albloushi (2009)<sup>[15]</sup> which showed that there was statistically significant moderate high correlation between attitude-knowledge, practice-knowledge and practice-attitude with p -value of 0.40, 0.56 and 0.40 respectively.

#### V. Conclusion

Based on the finding of this study, majority of the respondents had inadequate knowledge, more than 2/3<sup>rd</sup> of the respondents had negative attitude as well as poor practice regarding evidence-based practice. There was statistical significant association between respondents' level of practice regarding evidence-based practice and opportunity to participate in research related activities which means that those who got opportunity to participate in research related activities conducted by an organization have good practice in EBP than those who do not participate. There is also a strong relationship between knowledge, attitude and practice regarding evidence-based practice among respondents. It is concluded that there is need for evidence-based practice not only to improves quality of health services, but also reduces its costs, increases the staff productivity, helps in

making clinical decision and also contributes to the development in the field of nursing which results in achieving excellence in patient care.

### **Acknowledgement**

Researchers are very grateful to Chitwan Medical College-Institutional Research Committee (CMC-IRC) for approval to conduct this research. The researchers' sincere gratitude to extend heartfelt thanks to Prof. Mr. Raj Kumar Mehta for his immense support and also to all the participants who helped us to complete our study.

### **References**

- [1]. Sackett DL, Rosenberg WM, Gray JA, Haynes RB, Richardson WS. Evidence based medicine: what it is and what it isn't. *British Medical Journal*. 1996;312 (7023):71-2. Retrieved from <https://www.bmj.com/content/312/7023/71.short>
- [2]. Mississippi College. Role of Evidence-Based Practice in Nursing. 2017. Retrieved from <https://online.mc.edu/articles/nursing/role-of-evidence-based-practice-in-nursing.aspx>
- [3]. Manjula R, Srivastava AK, Dorle AS. Evidence based practice: knowledge, attitude and practice among undergraduate and postgraduate medical students of a medical college in North Karnataka, India. *International Journal of Community Medicine and Public Health*. 2018; 5(6): 2411-2415. Retrieved from <https://mail.ijcmph.com/index.php/ijcmph/article/download/2893/2099>
- [4]. Kalthor R, Kiaei MZ, Azmal M, Moosavi S, Tabatabaee SS, Gholami S. Nurses' Understanding of Evidence-Based Practice and Identification of Barriers to Utilization from Research: A Study of Nurses' Knowledge, Attitude and Practice. *British Medical Journal Open*. 2017;7(0): A1-A78. Retrieved from [https://bmjopen.bmj.com/content/7/Suppl\\_1/bmjopen-2016-015415.188.full.pdf](https://bmjopen.bmj.com/content/7/Suppl_1/bmjopen-2016-015415.188.full.pdf)
- [5]. Ingersoll GL. Evidence based nursing: What it is and what it isn't. *Nursing Outlook*. 2000;48(4):151-2. Retrieved from [https://www.nursingoutlook.org/article/S0029-6554\(00\)76732-7/fulltext](https://www.nursingoutlook.org/article/S0029-6554(00)76732-7/fulltext)
- [6]. Grinspun D, Virani T, Bajnok F. Nursing best practice guidelines the RNAO project. *Hospital Quarterly*. 2001;54-58. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/12061108>
- [7]. AbuRuz ME, Hayeah HA, Al-Dweik G, Al-Akash H. Knowledge, attitudes and practice about evidence-based practice: a Jordanian study. *Health Science Journal*. 2017;11:2. Retrieved from <http://www.hsj.gr/medicine/knowledge-attitudes-and-practice-about-evidencebased-practice-a-jordanian-study.php?aid=18754>
- [8]. Melnyk BM, Fineout-Overholt E, Gallagher-Ford L, Kaplan L. The state of evidence-based practice in US nurses: critical implications for nurse leaders and educators. *Journal of Nursing Administration*. 2012;42(9):410-7. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/22922750>
- [9]. Paulose B, Carvalho LS, Mathew B, Mani S, D'Souza DG, Bhattacharya C, D'Silva P. A study to assess the knowledge of nurses on evidence-based practice in selected setting. *International Journal of Nursing Education and Research*. 2016;4(3):307-310. Retrieved from <http://ijneronline.com/AbstractView.aspx?PID=2016-4-3-9>
- [10]. Di Censo A, Bayley L. Evidence-based nursing: Searching for the literature. *Sigma Theta Tau International Biennial Convention*. 2003; Toronto, Canada. Upton D, Upton P. Development of an evidence-based practice questionnaire for nurses. *Journal of Advanced Nursing*. 2006;53(4): 454-458. Retrieved from <https://www.ncbi.nlm.nih.gov/.../16448488>
- [11]. Mehrdad N, Joolaee S, Joolaee A, Bahrani N. Nursing faculties' knowledge and attitude on evidence-based practice. *Iran Journal of Nursing and Midwifery Research*. 2012;17(7):506-511. Retrieved from <https://europepmc.org/articles/pmc3730454>
- [12]. Heydari A, Mazlom SR, Ranjbar H, Scurlock-Evans L. A Study of Iranian Nurses' and Midwives' Knowledge, Attitudes, and Implementation of Evidence-Based Practice: The Time for Change Has Arrived. *Worldviews on Evidence-based Nursing*. 2014;00:0,1-7. Retrieved from [https://www.academia.edu/27404385/A\\_study\\_of\\_Iranian\\_nurses\\_and\\_midwives\\_knowledge\\_attitudes\\_and\\_implementation\\_of\\_evidence-based\\_practice\\_the\\_time\\_for\\_change\\_has\\_arrived](https://www.academia.edu/27404385/A_study_of_Iranian_nurses_and_midwives_knowledge_attitudes_and_implementation_of_evidence-based_practice_the_time_for_change_has_arrived)
- [13]. Perez-Campos MA, Sanchez-Garcia I, Pancorbo-Hidalgo PL. Knowledge, Attitude and Use of Evidence Based Practice among nurses active on the Internet. *Investigation Education Enfermeria*. 2014;32(3):451-460. Retrieved from [http://www.scielo.org.co/scielo.php?script=sci\\_arttext&pid=S0120-53072014000300010](http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0120-53072014000300010)
- [14]. Salem O, Alamrani A, Albloushi M. Knowledge, Practice and Attitude of Evidence Based Practice Among Nurses in Kingdom of Saudi Arabia. *Medical Journal of Cairo University*. 2009;77(2),121-128. Retrieved from [https://www.researchgate.net/publication/308777562\\_Knowledge\\_Practice\\_and\\_Attitude\\_of\\_Evidence\\_Based\\_Practice\\_Among\\_Nurses\\_in\\_Kingdom\\_of\\_Saudi\\_Arabia](https://www.researchgate.net/publication/308777562_Knowledge_Practice_and_Attitude_of_Evidence_Based_Practice_Among_Nurses_in_Kingdom_of_Saudi_Arabia)