

## **Knowledge, attitude and practice of nursing students Dezful university of medical sciences towards evidence-based nursing in the Second semester of the academic year 2017-2018**

### **Research Article**

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### **Abstract**

**Introduction:** Nowadays The health care systems around the world face many challenges and in many cases, health care is accompanied by many question Therefore, evidence-based practice, as an essential factor for improving health care is more emphasis. This study aimed to investigate the knowledge and attitude of nursing students of Dezful university of medical sciences toward evidence-based nursing. **Method:** This descriptive-analytical study was conducted in the second semester of the academic year of 2017-2018 at the Faculty of Nursing and Midwifery of Dezful university of medical sciences. The data collection tool was a standard questionnaire "Knowledge, attitude and practice of undergraduate nursing students about evidence-based practice". Data were analyzed using descriptive and analytical statistics in SPSS software. **Results:** The results showed that knowledge and attitude toward evidence-based practice with access to medical evidence from the Internet ( $p = 0/001$ ,  $r = 0/273$ ) and journal clubs ( $p = 0/000$ ,  $r = 0 / 306$ ) and the use of reference books and referring to them ( $p = 0/000$ ,  $r = 0/401$ ), there is a statistically significant relationship ( $p=0/01$ ,  $r=0/277$ ). This means that the mean scores of knowledge and attitudes among students most in search of scientific evidence in various ways (internet and journal clubs and reference books), as well as easier access to evidence, were significantly higher than other students. **Conclusion:** Evidence-based nursing is a process that is Emphasis on the latest findings will take the best decisions in order to raise the quality of care. Therefore, it is better for students to become fully acquainted with this concept and learn it. although The students' attitudes toward evidence-based practice was moderate; But with proper planning educational reforms in the education of nursing students, can be an important step in the development and promotion of evidence-based practice picked up.

**Keywords:** Evidence-based nursing, evidence-based practice, knowledge, attitude, nursing students.

### **Introduction**

Nursing care is one of the most important care provided in the field of health services (1). That's why nurses have an important role in promoting and maintaining the health and recovery of patients (2). And they have to synchronize with the latest clinical care achievements for providing their better quality services (3,4). Evidence-based nursing is a process that is emphasis on the latest findings will take the best decisions in order to raise the quality of care (5). In fact, evidence-based nursing is not a new concept for the first time by Gayat and colleagues at Mc Master university in Canada was raised (6,7). The increasing

development of science in nursing care and treatment has faced challenges (8). One of the suggested ways is evidence-based nursing that reduces the distance between research and clinical practice (9). According to research, the lack of evidence in addition to providing lower quality care leads to follow traditional patterns, loss of confidence and motivation of nurses providing care to the patient (10). While, the evidence-based nursing process leads to effective communication between the nurse and the patient, increasing the quality of care, reducing hospitalization time and cost of patients, enhancing nurses' self-esteem and improving their professional identity (11-15). But despite all these benefits, evidence-based practice, is facing many problems because many nurses do not operate on the basis of evidence-based practice, that can be attributed to their attitude towards this, for this reason, nurses need a proper attitude that should be established at the same time as students (16,17). According to a study by Milink and colleagues, only 46% of nurses performed their

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clinical care based on evidence-based performance (18). Various studies have identified several causes for this, Among the study Adib Haj Bagheri that the majority of nurses and nurse educators lack of familiarity with the concept of evidence-based nursing is the main reason for the poor performance of nurses (19). In another study, from the perspective of nurses, the incomprehensibility of the statistical concepts of the articles, feeling incapacitated in changing patient care practices, and lack of time and poor skills of nurses Access to the information mentioned (20). In another study, the lack of time and power are considered as the causes of this, and easy access to information sources and the creation of an appropriate attitude, learning opportunities, and culture-building as a solution to this problem (21).

According to Mangilian and his colleagues, the attitude of students in this regard was moderate, so they need to be properly planned, so that in the future they can lead to the development and promotion of evidence-based practice (22). The research shows that evidence based nursing care raise treatment and improvement of patients (23). Therefore, the present study was conducted to determine the attitude of nursing students in Dezful university of medical sciences.

## Method

This descriptive-analytic study was conducted in Dezful university of medical sciences in the second semester of the academic year 2017-2018. The statistical population of this study was all 3rd to 8th grade undergraduate students in nursing and midwifery faculty of Dezful university of Medical Sciences. According to the limited population of society, the total number of 3 to 8 semester students was counted as a sample. Out of a total of 170 students, 137 people attended the study with complete satisfaction. The criteria for entering the study were: Employment in nursing education in semesters 3 to 8 Faculty of nursing and midwifery, Dezful university of medical sciences, passing unit research method in nursing, Proper mental state. Exit criteria are also unwilling to participate in research and incomplete completion of the questionnaires considered.

The data collection tool was a standard questionnaire "Knowledge, attitude and practice of undergraduate nursing students about evidence-based practice" This questionnaire was developed and validated by Johnston et al. At the university of Hong Kong in 2003 (37). Farrokhzadian and colleagues in 1394 for using the questionnaire in his research, they contacted the author of this questionnaire. And with the consent of their, they paid to translation and cultural adaptation, the original questionnaire. Finally, the validity of the questionnaire with qualitative content validity was done by 10 faculty members of Kerman university of medical sciences (22). We are also in order to Using the questionnaire translated .by Farrokhzadian et al, I contacted them via e-mail and received their

consent to use the questionnaire.

The questionnaire consists of two parts. The first part contains 15 questions related to personal details, And the students' professionalism is like gender, satisfaction with their field of study, and so on and the students' professionalism is like gender, satisfaction with their field of study, and so on that Are shown in Table 1. And the second part includes 10 items related to attitude, that's a five-point Likert scale with answers, I agree (4), to some extent agree (3), I have no idea (2), to some extent I disagree (1) and disagree (0) were investigated.

Each student was able to earn a maximum of 40 points and a minimum score of 0. The overall score in the attitude towards evidence-based practice was calculated based on the sum of the meanings of responses related to the hinge in baseline 4; That way High average of 3 is good, Average of 2-3 is Medium, and average below 2 Was considered low (38).

In order to observe the ethics in the research, the researchers received a referral from the research center of the university, then they coordinated with the teaching of the faculty and the director of the nursing department. Finally, with satisfaction from the students after explaining the desired research goals and assuring them of the confidentiality of their responses, at appropriate times, questionnaires were distributed among them, and then collected after completion. In the end, the students were thanked for the cooperation.

SPSS version 20 was used to analyze the data. Descriptive statistics were used to calculate the score of students' attitude. And analytical statistics such as Pearson correlation, t-test and ANOVA were used to examine the relationship between the variables studied. In all tests, a significant level of  $P \leq 0.05$  was considered.

## Results

The sample consisted of 136 undergraduate students from 3 to 8 nursing students with a mean age of  $22.2 \pm 2.7$ . Of these, 56.9% were female and 43.1% were male. 55.5 percent of the students were relatively satisfied with their degree. 52.6% of the students were moderately fluent in English. 51.1% of the students never participated in research projects. 92.7 percent of students never participated in evidence-based practice periods, and 55.5 percent of them reported lack of knowledge about the lack of evidence-based care. 42.3% of students never used magazine journals and magazines. The descriptive statistics of the student's personal and professional profile are fully presented in Table 1.

The average student's scores on evidence-based performance was ( $29.08 \pm 7.8$ ). 8.1% had a moderate attitude. 59.7% had a weak attitude and only 32.2% had a good rating in terms of attitude toward concrete performance on evidence. The highest mean score is related to the statement " if the evidence-based

**Table 1: Descriptive statistics of demographic and vocational profiles of nursing students of Dezful university of Medical Sciences, Nursing and Midwifery Faculty.**

The variables studied	Floor	Number	Frequency
Sex	Male	59	43.1
	Female	78	56.9
Satisfaction with the field of study	1) Totally satisfied	29	21.2
	2) Fairly satisfied	76	55.5
	3) Fairly dissatisfied	22	16.1
	4) Absolutely dissatisfied	10	7.3
English proficiency	1) High	26	19.0
	2) Medium	72	52.6
	3) Low	39	28.5
Participate in educational research activities	1) Research method	46	33.6
	2) Statistics	2	1.5
	3) Internet education	17	12.4
	4) None	72	52.6
Frequency of participation in detecting researchable problems	1) 1 time	18	13.1
	2) 2-3 times	20	14.6
	3) More than 3 times	7	5.1
	(4)Never	91	66.4
Collaboration with the research project	1) 1 time	42	30.7
	2) 2-3 times	19	13.9
	3) More than 3 times	6	4.4
	(4)Never	70	51.1
Evaluation of research reports	1) 1 time	25	18.2
	2) 2-3 times	10	7.3
	3) More than 3 times	3	2.2
	(4)Never	99	72.3
Use of research findings at the workplace	1) 1 time	23	16.8
	2) 2-3 times	8	5.8
	3) More than 3 times	5	3.6
	4) Never	101	73.7
Participation in Evidence-based performance period	1) Yes	10	7.3
	2) No	127	92.7
How often do you access medical evidence on the Internet?	1) Every day	10	7.3
	2) Though day	35	25.5
	3) Every week	26	19.0
	4) Every month	30	21.9
	5) Never	36	26.3

How often do you access medical evidence in reference books?	1) Every day	5	3.6
	2) though day	15	10.9
	3) every week	24	17.5
	4) every month	52	38.0
	5) Never	48	35.0
How often do you access medical evidence on resources such as magazine clubs and magazines?	1) Every day	6	4.4
	2) though day	16	11.7
	3) every week	19	13.9
	4) every month	38	27.7
	5) Never	58	42.3
If you want to use evidence-based practice, do you prefer how to access the evidence?	1) School Library and Hospital	26	19.0
	2) Computer Center of the School and Hospital	17	12.4
	3) home computer and laptop	35	25.5
	4) Mobile Phone	45	32.8
	5) No response	13	9.5
I will not work based on evidence-based practice, because:	1) My coaches and professors do not.	15	10.9
	2) I do not know how to act	76	55.5
	3) I do not believe it	6	4.4
	4) My colleagues do not	5	3.6
	5) I do not have time.	33	24.1
	6) I do not change my old habits because of personal bias.	2	1.5
How easy or difficult it was for you, as a nursing student, to use existing evidence in your care during the course of the month?	1) Easy	16	11.7
	2) Medium	77	56.2
	3)hard	44	32.1
How much do you think the evidence-based performance will be useful in your future as a nurse, compared to a year ago?	1) Useful	45	32.8
	2) Somewhat helpful	85	62.0
	3) Harmful	7	5.1
Compared to a year ago, you would like to be as a nurse in the future Use evidence-based practice?	1) I would like	50	36.5
	2) I would like somewhat	68	49.6
	3) I do not want to	18	13.1

**Table 2. Evaluation of mean and standard deviation of attitude of nursing students of Dezful university of Medical Sciences in nursing and midwifery faculty towards evidence-based practice.**

Attitudes related	Answers - Number - Percent	(Mean ± Standard deviation)
1. The " evidence-based performance " clause , Should be part of the nursing bachelor's curriculum.	1) Agree-61-44/5 2) I agree somewhat-30-21/9 3) I do not mind-23-16 / 8 4) Somewhat disagree-8-5/8 5) I disagree -15-10/9	(2/16 ± 1/34)
2. The future of clinical medicine will be based on evidence-based performance, and will become standard care.	1) Agree-49-8/35 2) I agree somewhat-33-1/24 3) I do not mind-28-4/20 4) Somewhat disagree-10-3/7 5) Disagree-17-4/12	(2.36 ± 1.36)
3. To provide the best patient care, previous work experience is more important than research findings.	1) Agree-41-29/9 2) I agree somewhat-43-31/4 3) I disregard-31-22/6 4) Somewhat disagree-11-8/0 5) Disagree-11-8/0	(2.32 ± 1.21)
4. The evidence-based performance takes a lot of time for nursing students.	1) Agree-35-25/5 2) I agree somewhat-52-38/0 3) I disregard-25-18/2 4) Somewhat disagree-15-10/9 5) Disagree-10-7/3	(2.36 ± 1.18)
5. It is easy to find evidence for evidence-based performance.	1) Agree-13-9/5 2) I agree somewhat-26-19/0 3) I disregard-39-25/5 4) Somewhat disagree-37-27/0 5) Disagree-22-16/1	(3.21 ± 1.20)
6.Evidence-based performance Ignores the clinical experience.	1) Agree-15-10/9 2) I agree somewhat-24-17/5 3) I disregard-42-30/7 4) Somewhat disagree-32-23/4 5) Disagree-24-17/5	(3.18 ± 1.23)
7.If the evidence-based performance is valid, then anyone can take care of the patients.	1) Agree-12-8/8 2) I agree somewhat-16-11/7 3) I disregard-36-26/3 4) Somewhat disagree-36-26/3 5) Disagree-37-27/0	(3.51 ± 1.24)
8. In general, a nurse should not have evidence-based practice, since it is a human-patient outcome.	1) Agree-11-8/0 2) I agree somewhat-15-10/9 3) I disregard-36-26/3 4) Somewhat disagree-43-31/4 5) Disagree-32-23/4	(3.51 ± 1.19)
9. The evidence-based practice ignores the nursing art.	1) Agree-10-7/3 2) I agree somewhat-28-20/4 3) I disregard-36-26/3 4) Somewhat disagree-39-28/5 5) Disagree-24-17/5	(3.28 ± 1.18)
10. There is no reason for me to work on evidence-based practice, because there is only a craze or fashion that will endure over time.	1) Agree-13-9/5 2) I agree somewhat-28-20/4 3) I disregard-45-32/8 4) Somewhat disagree-27-19/7 5) Disagree-24-17/5	(3.15 ± 1.21)

performance is valid, then anyone can take care of the patients." and the lowest mean score associated with the "evidence-based performance" clause, should be part of the nursing bachelor's curriculum." (Table 2)

Data analysis showed that students' attitude towards evidence-based performance with access to medical evidence via internet ( $p = 0.001$ ,  $r = 0.273$ ) and journal clubs ( $p = 0.000$ ,  $r = 0.306$ ) and the use of reference books and referring to them ( $p = 0.000$ ,  $r = 0.401$ ) have a significant statistical relationship. A statistically significant relationship was found between the amount of difficulty or easy access of nursing students to available scientific evidence and attitude towards evidence-based performance ( $r = 0.27$ ,  $p = 0.01$ ). This means that the average scores of attitudes among students who mostly seek scientific evidence in various ways (internet and journal clubs and reference books), as well as easier access to evidence, were significantly higher than other students. There was no significant relationship between satisfaction with academic discipline and attitude towards function-based ( $p = 0.87$ ). Independent t-test between gender and attitude ( $p < 0.05$ ) showed a statistically significant relationship. Pearson correlation coefficient between age and attitude, and ANOVA test between the other demographic variables and attitude did not show a significant relationship ( $P > 0.05$ ).

## Discussion

Evidence-based nursing will be a process that emphasizes the most up-to-date findings, providing the best care for quality improvement (4). Facing increasing scientific advances in nursing care and treatment has been challenged (8), one of the suggested ways is evidence-based nursing that reduces the gap between research and clinical practice. Research has shown that nursing care evidence based it can improve treatment and improve patients (23). Therefore, nursing should be paid more attention, and this requires a proper attitude of students towards this function. (24) Therefore, the present study was conducted to determine the attitude of nursing students in Dezful university of medical sciences.

In this study, 8.1% had a moderate attitude. 59.7% had a weak attitude and only 32.2% had a good rating in terms of attitude towards evidence-based performance. In the study of Erami et al., Most nurses had no information about the different levels of evidence-based nursing. In this study, a number of cases were used to examine the knowledge of nurses about evidence-based nursing. The results showed that 64% of participants had not even heard the name of nursing evidence, and only 15% of them at the nursing workshop Based on evidence. In addition, 88% of participants did not know the different levels of evidence-based nursing (25). But the results of Aghahisseini et al showed that 41.2% of nurses had a

positive attitude and 58.8% were indifferent to evidence-based nursing. This difference in the attitude towards evidence-based nursing can be due to the fact that in the questionnaire The recommendations given to nurses were given in the form of evidence-based nursing that a positive attitude toward nurses was probably due to the study and acquisition of this information (26). In a study conducted by Salehi et al., The results showed that 53% of nurses in most of the research units were weak in terms of implementation of evidence-based nursing care. In other words, the performance of most research units is not based on research evidence (27). Also, the results of several studies showed that the majority of nurses had a positive attitude toward evidence-based nursing. For example, in the study of Dehghani et al., The majority of nurses (85.8%) had a positive attitude and limited numbers (14.2%) had moderate attitudes toward evidence-based performance (28). The results of Bennet et al. Also showed that 95.7% of the participants in the research had a positive attitude toward evidence-based care (29). Another example of the high percentage of positive attitude towards evidence-based nursing can be seen in a study on the admission of evidence-based practice in clinical decision making, the results of this study showed that 64% of nurses had a positive attitude toward evidence-based performance However, they pointed out that, given the heavy workload, they could not apply new evidence (30). This study was not consistent with the present study. The reason for this inconsistency can be due to different sample size and knowledge level and different study of nurses in different cities of the city to conduct a study on evidence-based nursing and thus change their attitude. In this study, there was no significant relationship between age and attitude and among other demographic variables and attitudes. Which was not consistent with the results of the studies by Aghahisseini et al (26) and Dehghani et al. (28). Thus, in the study of Aghahisseini et al. (26), nurses aged less than 30 years had a better attitude toward nurses aged 30-39 and over 40. The reason for this inconsistency can be due to different sample sizes, and also because the present study is a study on nursing students, and the average age of the participants in the study is lower than the other studies.

In this study, the average students' score for evidence-based performance was ( $29.08 \pm 7.8$ ). The results of this study also showed that there is a statistically significant relationship between students' attitude towards evidence-based performance and access to medical evidence through internet and journal clubs and the use of reference books and referring to them. Also, there was a statistically significant relationship between the degree of difficulty or easy access of nursing students to scientific evidence and the attitude toward evidence-based performance. In the study of Dehghani et al. (28), the results of nurses' performance on evidence-based nursing showed that more than half

of the nurses had a moderate performance and the rest had poor performance and only a few good performance related to their performance Evidence-based. There was also a significant relationship between sex, age and work experience of nurses with their performance in relation to evidence-based performance, so that male nurses and older nurses with a higher work experience had better performance in this regard. In McCluskey et al., More than half of the people reported lower ability in evidence-based performance, and 79% of nurses reported their knowledge of low-level electronic resources (31). In studies, the amount of conceptual use and the direct application of research findings in practice among nurses is low, so that 54.7% of nurses in some cases used research findings in their work and the main source of their research information was books Nursing and Educational Supervisor (32).

Also, the results of studies such as Retsas et al (33), Carrion et al (34), Niederhauser et al (35), Amini et al (35), and Dehghani et al. (28), lack the time to implement new ideas first and the most important obstacle in the way of evidence-based performance. Also, based on the results of the study, the important barriers to using the results of clinical trials in the nurses' viewpoints, lack of facilities for using the results of the research, lack of time to implement new ideas and lack of the opportunity to read research and research articles (35). In the study of Retsas et al. (33), the main barriers to using the results of the research were not having enough time to implement the results of the research, lack of competence of the nurses to change the patient procedures and lack of adequate facilities.

### Conclusion

Considering the results of this study showed that a relatively high percentage of nurses did not have a positive attitude towards evidence-based performance, so only 32.2% of the subjects had good points in attitude towards evidence-based performance. Therefore, nurses' training on evidence-based practice seems to be obvious in practice. It is also necessary to create the necessary facilities for nursing care based on evidence and participation of nurses in clinical trials as well as support for research based care.

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### Conflict of interest

There are no conflicts of interest in this study.

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