Perception of Nursing Staff about Obstacles to Nursing Research in Al- Jouf University

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Abstract: This study was to investigate the obstacles to conducting as well as applying nursing research in Al-Jouf University. It conducted on five main areas at Al-Jouf University which are Faculty of Applied Medical Sciences male and female sections, Faculty of Health Sciences male and female sections at Sakaka city and Faculty of Health Sciences at Al- Qurrayat. All nursing staff in the university was included in this study. A structured questionnaire sheet was developed by the researcher. Results revealed a number of obstacles to conducting nursing research as limited time (24% & 52% strongly agree and agree respectively, P ≤ 0.02 and reduced numbers of demonstrators or clinical instructor (56% & 24% strongly agree and agree, respectively, $P \le 0.003$. Administrative constrains as lack of time, money, and clinical equipments, inability of nurses' to deduce clinical research problems represented the most important obstacles to applying results of nursing research in Al- Jouf University. The study concluded that there are a number of obstacles to conducting nursing research at Al – Jouf University among which of statistically significant are: limited time, reduced number of demonstrators or clinical instructors, lack of a library for postgraduate, lack of centers for certain diseases, and absence of postgraduate affairs besides other obstacles to conducting nursing research at Al- Jouf University. Moreover, the study concluded that the most important obstacles to applying results of nursing research are administrative constrains as lack of time, money and clinical equipments and inability of nurses to deduce clinical research problems. The study recommended the necessity of postgraduate library, training of nursing staff on using digital library and educational programs for the public to use local health resources at Sakaka.

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Key words: Nursing research, obstacles, conducting, applying

1. Introduction

Nursing research is a vital component to the health care field. Nursing research helps implement new changes in the life long care of individuals and is used to develop treatments that provide the most optimum level of care. (researchinfoonline, 2005). Nursing research has a tremendous influence on current and future professional nursing practice, it also considers an essential component of the educational process. (Tingen *et al.*, 2009).

The health field makes significant advances every day. As science unfolds and expands man's concept of the boundaries of medicine, we can expect that this will cause considerable and important leaps in the area of health and treatments. With Nursing Research, these new changes will continue to be implemented and developed into therapies and treatments that will ultimately bring faster healing and better quality of life to the patients who need them most. These therapies are not only for the bettering of the patient, but also for the community as a whole. Scientific progress and discovery means less disease, fewer illnesses, more vaccines, and a better quality of life for the community as a whole. (Polit & Beck, 2004)

One strategy to enhance research use and change current practice is to identify barriers and

then implement tailored interventions to reduce these barriers. (Bostrom *et al.*, 2008). Many studies investigate the obstacles of using nursing research, however no studies have been done to investigate the obstacles of conducting as well as using a nursing research, hence a need for this research. There is an observation around me with my colleagues which is lack of publications, so I conducted this research to touch the reasons for not conducting and using nursing research in Al- Jouf University

Aim of the study

The aim of this work is to identify specific problems to conducting and utilizing nursing research that might increase the research in the nursing field.

2. Subjects and Methods:

Setting:

This study is conducted in 5 areas where there are nursing staff at Al- Jouf University (Faculty of Applied Medical Sciences – nursing department male section, Faculty of Applied Medical Sciences – Nursing department, female section. Both of them are present in Sakaka city – Al- Jouf, Faculty of Health sciences male and female sections at Sakaka city and finally Faculty of Health Sciences at Qurrayyat city - Al- Jouf University.

Sample:

All nursing staff at the previous five settings is included in this study. A convenient sample is used for this study. A total of 25 nursing staff are enrolled in this study; Faculty of Applied Medical Sciences female section (8 members), male section of it (8 members), Faculty of Health Sciences male section (3 members), female section (4 members) and finally 2 staff members from the Faculty of Health Sciences in Al – Qrayyat.

Tools:

A structured questionnaire sheet developed by the researcher. It includes three parts:

Part I: includes personal and academic data about nursing staff as name, age, faculty, position, and qualifications.

Part II: includes data about number of research publications of nursing staff, type of research and time of conducting a research.

Part III: includes questions about obstacles to conduct nursing research and use its results in Al-Jouf University.

Methods:

- 1. An official permission was obtained from the dean of the Faculty of Applied Medical Sciences to ask nursing staff in the faculty to fulfill the questionnaire sheet.
- 2. An oral agreement was taken from nursing staff to be enrolled in the study.
- 3. The researcher interview female nursing staff, but male ones were sent it by mail. Female nursing staff in Faculty of Health Sciences at AL-Qrayyat were sent the questionnaire sheet by fax due to the long distance
- 4. The Arabic version of the tool was distributed to three staff to test the clarity and reliability of the tool. The tool was relevant and applicable but some words have been modified. Reliability of the Arabic version was tested using Cronbach Alpha test for the analysis. Cronbach Alpha coefficient of internal consistency was 0.8212

Statistical analyses:

Personal computer (Pc) was used to store and analyze data and, to produce graphic presentation for some important results. Comparison of percentages: qualitative variables are expressed as percentages and compared among two groups using the chi square test. The same test is used for comparison of 2 or more groups. The Fischer's exact formula is used with small frequencies to avoid false significance (Munro, 1997). Comparison of means: the t-test is used for comparison of means. The output of t-value (probability of error) is obtained from the t-test. Correlation coefficient (r) was used to study the correlation between two quantitative variable (Munro, 1997).

-For each test level of significant (P) was considered as follows:

 $P > 0.05 \rightarrow$ Insignificant

 $P < 0.05 \rightarrow Significant$

 $P < 0.01 \rightarrow$ Highly significant

 $P < 0.001 \rightarrow$ Very highly significant

Limitations of the study:

Limited number of nursing staff at Al- Jouf University which lead to a convenient sample not random sample.

3. Results:

Table 1 shows biosocial characteristics of studied sample. It was shown from this table that male represents less than half of study sample. The majority of studied sample is in the age group between 30 and < 40 years (44%). The mean age is 36.2 ± 6.03 .

As regards Faculty, about one- third of nursing staff included in the study is from Faculty of Applied Medical Sciences male section. The same percentage is from the Faculty of Applied Medical Sciences female section.

Regarding qualifications of the studied sample, approximately half of them have a master degree in Nursing, so, near half of studied sample are lecturers (44%).

Table 2 demonstrates percentage distributions of research papers of studied sample. The majority of studied sample spent from 2 - < 4 years in Al- Jouf University.

Ninety two percent of studied sample have no publications. Only 4 % of conducted researches use experimental design and the same percent use non-experimental research design with only 4 % of researches conducted during the academic year.

Table 3 illustrates nursing staff's opinion of the obstacles related to the researcher in their percentage distributions. About one- quarter of them strongly agreed and more than half of studied sample agreed that limited time is an obstacle to conducting nursing research in Al- Jouf University. The result proved to be statistically significant (24% and 52%, respectively, $P \le 0.02$)

About one- third of studied sample agreed that difficulty of administrative steps for agreement to conducting a nursing research represents also an obstacle (32% but the result was not statistically significant). Also more than half of them strongly agreed and about one –quarter of them agreed that reduced number of demonstrators or clinical instructors perceived to be an important obstacle to conducting nursing research in Al-Jouf University and the result was statistically significant (56% & 24%, respectively $P \le 0.003$).

However, a higher percentage of the studied sample disagree that lack of interest of nursing staff represents an obstacle to nursing research. Moreover, a higher percentage of them disagree that difficulty of obtaining their promotion neither in Al- Jouf University nor in their national universities was an obstacle to conducting a nursing research.

Table 4 reveals nursing staff's opinion about obstacles of nursing research related to Al -Jouf University in percentage distributions. Approximately one – third of studied sample strongly agreed and about half of them agreed that absence of University Hospital is a major obstacle to conducting nursing research (48% and 36%, respectively), with no statistically significant difference.

As regards preference of most of patients to go a central hospital in large cities or private sector; it was found that two- fifths of studied sample strongly agreed and about one- third of them agreed that this may be an obstacle to conducting nursing research in Al-Jouf University. The result was statistically significant (48% & 32%, respectively, $P \le 0.02$).

No statistically significant differences were found regarding refusal of patients to be enrolled in research, difficulty of female staff to visit a central library in the university, absence of a library in the faculty and lack of cooperation of patients because of fear, illiteracy, or lack of confidence in the researcher.

A high percentage of studied sample 44%, and 40%, strongly agreed and agreed, respectively that absence of a library for postgraduate which contain periodicals and specific journals and also lack of centers for certain diseases both contributed to the obstacles facing nursing research in Al- Jouf University. The difference proved to be statistically significant. (44% & 40%, respectively, $P \le 0.008$ for both items).

Table 5 shows nursing staff's' opinion about obstacles of nursing research related to Al -Jouf University in percentage distributions (Cont). About half of studied sample strongly agreed and more than half of them agreed that absence of postgraduate affairs in Al- Jouf University represents an important obstacle to nursing research. The result detected was statistically significant (44% & 52%, respectively, p 0.007). However, no statistically significant differences were detected regarding absence of academic liberty for conducting research and publications of its results, lack of centers for statistics, lack of informing female nursing staff about conferences and workshop, lack of participation of nursing staff in conferences and workshops.

Moreover, about one- third of nursing staff in the studied sample (32%) strongly agreed and near half of them (48%) agreed that absence of informing nursing staff about university's subscription to the digital library is one of the obstacles to nursing research. The result was statistically significant P \leq 0.001).

Also high percentage of studied sample perceived that net search is not enough as an obstacle to conducting nursing research . (28% & 40%, respectively $p \le 0.02$).

A majority of nursing staff reported lack of conferences and workshops in nursing and lack of exchange of experiences with other universities were major obstacles to conducting nursing research. The result proved to be highly statistically significant (40 % & 44%, respectively, $P \le 0.000$ for both items).

Approximately one half of studied sample (48%) agree and about one –third of them (36%) strongly agree that lack of research coordination and cooperation also appear to be an obstacle to nursing research with a statistically significant difference (P ≤ 0.008).

Finally, a high percent of studied sample agree and high percent of them also strongly agree that lack of university fund for researches contributes to the obstacles of conducting nursing research at Al-Jouf University. The difference was statistically significant difference (40% & 44%, respectively, $p \le$ 0.01).

Table 6 shows nursing staff's' opinion about obstacles of applying results of nursing research in percentage distributions. No statistically significant results were detected regarding lack of published research in some clinical aspects, some limitations in conducting a research as sample size or type or research design, lack of nurses' experience in research reading and critique, absence of publications of theses or dissertations and nature of most human beings about lack of changes.

Moreover, about one- third of studied sample agreed and near half of them strongly agreed that administrative constrains as lack of time, money, and clinical equipments may be a reason for not applying results of nursing research. The result was statistically significant (32 % & 48%, respectively, P \leq 0.001).

Nursing staff perceived that inability of nurses to deduce clinical research problems represented a major obstacle to applying results of nursing research in Al – Jouf University. The result proved to be highly statistically significant (20% & 64%, resp

respectively, $P \le 0.000$).

Table (1): Biosocial characteristics of studied sample

Item		No	%
* Sex:			
•	Male	11	44%
•	Female	14	56%
*Age:			
•	20- 29 years	4	16%
•	30- >40	11	44%
•	40 and over	10	40
Mea	$n \pm SD$	36.2± 6.0)3
* Faculty:			
•	Faculty of Applied Medical Sciences male section	8	32%
•	Faculty of Applied Medical Sciences female section	8	32%
•	Faculty of health sciences female section at Sakaka	4	16%
•	Faculty of health sciences male section at Sakaka	3	12%
•	Faculty of health sciences female section at qurrayyat	2	8%
*Qualificat	tions:		
•	Bachelor degree in Nursing	3	12%
•	Master degree in Nursing	12	48%
•	PHD in Nursing	10	40%
*Current J	ob at Al-Jouf University:		
•	Demonstrator	4	16%
٠	Lecturer	11	44%
•	Assistant professor	8	32%
•	Assistant professor and coordinator of department	2	8%

Table 2 : Percentage distribution of research paper of studied sample

Item	No	%
* Years spent in Al-Jouf University		
• <2 years	4	16%
• 2 - < 4 years	17	68%
4 years and more	4	16%
*Numbers of publications:		
None	23	92%
• 2	2	8%
* Research design used:		
Experimental	1	4%
Non Experimental	1	4%
*Time of conducting research:		
During the academic year	1	4%
At the summer time	1	4%
*Number of researches conducted during the academic year:	1	4%

Table (3): Nursing staff's opinion of the obstacles related to the researcher in their percentage distributions

Obstacles of nursing research	Strong	ly agree	Ag	gree	Ne	eutral	Di	Disagree		Disagree Strongly disag		Strongly disagree		P- Value
related to researchers	No	%	No	%	No	%	No	%	No	%				
* Limited time	6	24%	13	52%	2	8%	4	16%	0	0%	11.00	0.02*		
*Difficulty of administrative steps for agreement to conduct the research	4	16%	8	32%	6	24%	4	16%	3	12%	3.20	0.345		
*Reduced numbers of demonstrators or clinical instructor increasing the responsibility of the staff in clinical training of students	14	56%	6	24%	2	8%	3	12%	0	0%	14.20	0.003**		
*Lack of interest of nursing staff in research	4	16%	4	16%	7	28%	8	32%	2	8%	4.800	0.308		
*Difficulty of obtaining promotion for nursing staff in Al- Jouf University	6	24%	7	28%	3	12%	8	32%	1	4%	6.800	0.147		
* Difficulty of obtaining promotion for nursing staff in their national Universities lead to lack of motivation for conducting research	7	28%	4	16%	6	24%	7	28%	1	4%	5.200	0.267		

Table (4): Nursing staff's opinion	about obstacles of	nursing research related	to Al -Jouf University in
percentage distributions			

Obstacles of nursing research related to Al- Jouf University	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		X ²	P- Value
	No	%	No	%	No	%	No	%	No	%		
* Absence of University Hospital	12	48%	9	36%	0	0%	4	16%	0	0%	3.920	0.141
* Preference of most of patients to go a central hospital in large cities or to private sector	10	40%	8	32%	3	12%	3	12%	1	4%	11.6	0.02*
* Refusal of most of patients to be enrolled in research	6	24%	10	40%	5	20%	4	16%	0	0%	3.320	0.345
* Lack of accurate data base to use in research	8	32%	5	20%	6	24%	6	24%	0	0%	0.760	0.859
*Difficulty of female staff to visit a central library in the university	7	28%	4	16%	8	32%	4	16%	2	8%	4.800	0.308
* Absence of a library in the faculty and consequently, lack of books used in research	9	36%	4	16%	4	16%	6	24%	2	8%	5.60	0.231
* Absence of a library for postgraduate which contain periodicals and journals	11	44%	10	40%	0	0%	3	12%	1	4%	11.96	0.008**
*Lack of centers of certain diseases as diabetes center, autism center or ophthalmology hospitaletc	11	44%	10	40%	1	4%	3	12%	0	0%	11.96	0.008**
*Lack of cooperation of patients because of fear, illiteracy or lack of confidence in the researcher	5	20%	10	40%	5	20%	5	20%	0	0%	3.00	0.392

Table (5): Nursing staff's opinion about obstacles of nursing research related to Al -Jouf University in percentage distributions (Cont)

Obstacles of nursing research related to Al- Jouf University	Strongly Agree		Α	Agree		Neutral		Disagree		ngly gree	X ²	P- Value
	No	%	No	%	No	%	No	%	No	%		
* No postgraduate affairs in the university	11	44%	13	52%	0	0%	1	4%	0	0%	9.920	0.007**
* Lack of academic liberty for conducting research and publications of its results	8	32%	5	20%	6	24%	6	24%	0	0%	0.760	0.859
* Absence of informing nursing staff about university's subscription to the digital library	8	32%	12	48%	3	12%	1	4%	1	4%	18.8	0.01*
* Lack of centers for statistics	6	24%	11	44%	5	20%	3	12%	0	0%	5.560	0.135
* Net search is not adequate	7	28%	10	40%	2	8%	5	20%	1	4%	10.8	0.02*
* Lack of informing female nursing staff about conferences and workshops	8	32%	9	36%	7	28%	0	0%	1	4%	6.200	0.102
* Lack of participation of nursing staff in conferences and workshops	6	24%	10	40%	4	16%	4	16%	1	4%	8.800	0.06
* Lack of conferences and workshops in nursing lead to lack of awareness of nursing staff about new trends in nursing	10	40%	11	44%	2	8%	1	4%	1	4%	20.4	0.000***
* Lack of exchange of experiences with other universities	10	40%	11	44%	2	8%	1	4%	1	4%	20.4	0.000***
* Lack of research cooperation and coordination as each conduct a research alone either individual, group, center, university or a nation	9	36%	12	48%	3	12%	0	0%	1	4%	11.960	0.008*
* Lack of university fund for researches	10	40%	11	44%	3	12%	0	0%	1	4%	10.68	0.014*

Table (6): Nursing	staff's	opinion	about	obstacles	of	applying	results	of	nursing	research	in	percentage
distributions												

Obstacles of applying results of nursing research	Stroi agr	••	Ag	ree	Net	ıtral	Disagree			Strongly disagree	X ²	P- Value
	No	%	No	%	No	%	No	%	No	%		
* Lack of published research in some clinical aspects	5	20%	10	40%	0	0%	8	32%	2	8%	5.88	0.118
* Some limitations in conducting a research as sample size or type or research design which may limit the generalizations of study results	6	24%	9	36%	4	16%	6	24%	0	0%	2.04	0.564
* Lack of nurses' experience in research reading and critique and difficulty in explaining statistical results or research design	10	40%	6	32%	3	12%	6	24%	0	0%	3.960	0.266
* Absence of publications of theses or dissertations results	10	40%	6	24%	3	12%	5	20%	1	4%	9.200	0.56
*Administrative constrains as lack of time, money, and clinical equipments	8	32%	12	48%	1	4%	2	8%	2	8%	18.40	0.001**
* Inability of nurses' to deduce clinical research problems	5	20%	16	64%	3	12%	0	0%	1	4%	21.56	0.000***
* Nature of most human beings about lack of change which requires motivation and retraining	8	32%	7	28%	7	28%	2	8%	1	4%	8.400	0.078

4. Discussion

Recent shifts in the health care environment have renewed focus on the role of research in clinical practice. Regulatory and funding agencies stress the importance of bridging the gap between research and practice and highlight the need for collaborative, applied research and quality-driven care focusing on patient outcomes and quality indicators (McNett *et al.*, 2009). Baessler *et al.*, 1994 reported that of 12 sources of knowledge on which nurses base practice, research was ranked last by nurses, with the mean rating indicating that research-based knowledge was seldom used.

This study revealed that more than 90% of studied sample didn't have any publications during a period of stay in Al- Jouf University ranges from< 2 years to 6 years as shown in table 2, hence the need to investigate the obstacles of conducting and using results of nursing research at Al- Jouf University.

More than three- fourths of studied sample perceived limited time as an obstacle to conducting nursing research in Al- Jouf University; about onequarter of them strongly agree and more than half of them agree (24% and 52%, respectively, $P \le 0.02$) as shown in table 3. It can be explained by the results obtained in the same table that the majority of studied sample either agree or strongly agree that reduced numbers of demonstrators or clinical instructors which increase the load on the staff is an important obstacle (56% and 24%, respectively, $P \le 0.003$). This may be because practical hours equals double to the theoretical hours and only half of them are considered in the timetable of the staff as credit hours.

As regards obstacle to conducting nursing research related to the university, more than three – fourths of studied sample view lack of university hospital an obstacle to conducting nursing research at Al-Jouf University but this result was not statistically significant. Almost as many saw preference of patients to go to a central hospital in large cities or a private sector an important obstacle. This result was statistically significant $P \le 0.02$). Most of patients convinced that if they want better care for the disease or, from the start, appropriate diagnosis, they have to go Riyadh, Jeddah, or sometimes Egypt or Jordan.

Even the small number of patients admitted to governmental hospitals in Sakaka refuse to be enrolled in research as was noted by about twothirds of studied sample as shown in table 4. Perhaps because there is no University Hospital so, patients in the hospitals of the Ministry of Health don't accept to be sample in research.

However, this study revealed that difficulty of female staff to visit a central library in the university

is less problematic. This can be explained that near half of studied sample were male and haven't any difficulty of this type. Also, because most female and even male staff rely on the World Wide Web and digital library on their scientific search rather than the traditional library.

Absence of a library for the postgraduate which contains periodicals and journals was also noted as a significant obstacle to conducting nursing research (44% and 40%, strongly agree and agree, respectively, $P \le 0.008$). This is in accordance with Beyea and Nicoll, 1997 who stated that limited library resources may affect staff nurses' ability to find research to use in their practices.

Although the internet resources are available for all staff in the university, yet some articles are not available so, nursing staff still in need for postgraduate traditional library.

This study showed that lack of centers of certain diseases as diabetes center, autism center and so on appeared to be an important obstacle to conducting nursing research with agreement percentage reached up to 84% (44% and 40%, strongly agreed and agreed, respectively, $P \le 0.008$). This can limit the conduction of research because of the limited number of patients came to the general hospital.

The nursing staff in this study perceived that absence of informing them about university's subscription to the digital library a major obstacle to conducting nursing research and the result was statistically significant as shown in table 5 ($P \le 0.01$). This leads to the perception that net search is not adequate by nursing staff which is also statistically significant ($P \le 0.02$) as shown in table 5 because of their lack of knowledge about university's subscription to the digital library which limit its use in research.

Lack of conferences and workshops in nursing was reported by majority of nursing staff to be an important obstacle to conducting nursing research (44% and 40% strongly agree and agree, respectively). This result proved to be highly statistically significant ($P \le 0.000$). This may be explained as nurses remained away from new trends in nursing. Moreover, the majority of nursing staff revealed that lack of exchange of experiences with other universities and lack of research cooperation and coordination as each conduct a research alone either individual, group, center, university or a nation $P \le 0.000$ and 0.008, respectively as shown in table 5 as important obstacles which increase the body of knowledge and experiences with the nursing staff.

Finally, a high percentage of nursing staff perceived lack of university fund for researches a major obstacle to conducting nursing research at AlJouf University. This result was statistically significant (40 % and 44% strongly agree and agree, respectively, $P \le 0.014$). This may limit the desire of the researcher to conduct a true experimental study or even may lead to loss of motivation to conducting research.

Obstacles to applying results of nursing research:

Most of us would agree that the quantity and quality of nursing research has increased during the past decade. But the application of nursing research findings to practice problems is still problematic. (Tingen *et al.*, 2009).

This study found that lack of published research in some clinical aspects is an important obstacle to applying results of nursing research but this result was not statistically significant as shown in table 6.

A higher percentage of nursing staff perceived a research itself to be a major obstacle to applying nursing research in this study as shown in table 6. Some limitations in conducting research as sample size or type or research design. This is in accordance with Beyea and Nicoll, 1997 who stated that published research may have limitations (e.g. sample size, design) that restrict the ability to generalize results to clinical practice settings.

Moreover, Funk *et al.*, 1995 who surveyed nurses from around the nation to determine their perceptions of the obstacles to using research in practice and revealed that over one half of subjects noted that lack of replication of the research was an important barrier. In case of limitations of research, nurses don't know whether to believe the results of the research, conflicting results, methodologic inadequacies, unjustified conclusions. Also, Funk *et al.*, 1991 reported that lack of research generalizability rated as substational barrier.

Lack of nurses' experience in research reading and critique and difficulty in explaining statistical results or research design is perceived as an obstacle by a higher percentage of nursing staff but differences were not statistically significant as shown in table 6. On the other hand, other studies reported it as an obstacle to applying results of nursing research: Diane et al., 1997 found that lack of nurses' knowledge of nursing research finding was one of the major barriers to using research findings in nursing practice. Moreover, Kajermo et al., (2000) reported that nurses' research- related competence and awareness were seen as a barrier to research utilization by the nursing teachers, students and administrators to a great extent than by the nurse clinicians themselves.

Oranta *et al.*, 2002 stated that one of the main barriers to research utilization identified by nurses was that statistical analyses difficult to understand.

Also, Bostrom *et al.*, 2008 revealed that one of the three items most frequently reported as barriers is the nurses' isolation from knowledgeable colleagues with whom to discuss the research. Moreover, Funk *et al.*, 1995 found that nurses' lack of awareness of research was also seen as a frequent barrier, as was the sense of isolation with knowledgeable colleagues with whom to discuss research. This isolation could be particularly problematic, because most also believed that practicing nurses might feel incapable of evaluating the quality of research on their own.

In addition Hefferin *et al.*, 1982 reported a survey of Veterans administrators (VA) and non veterans administrators (non- VA) and researchers' view of factors acting as probable barriers or deterrents to nurses' involvement in research activities and found that statistical analyses that are not understandable is one of the great barrier of the VA or non- VA subjects. Moreover, Beyea and Nicoll, 1997 found that nurses may lack experience reading and critiquing research reports and may have difficulty interpreting study design and statistical findings.

This may be explained that other studied conducted their research not only on academic staff nurses' but also nurse clinicians, students and administrators. While, our study was conducted on academic staff nurses' only who didn't view this as an obstacle to applying results of nursing research.

The majority of studied sample saw administrative constrains as lack of time, money and clinical equipment to be a major obstacle with statistically significant differences $P \le 0.001$) as shown in table 6. This study is in agreement with Pettengill *et al.*, 1994 who reported that lack of time was the factor that most discouraged research utilization. Also, Diane *et al.*, 1997 stated that one of greatest barriers to using research findings in nursing practice was insufficient time in the job to implement new ideas. Moreover, Funk *et al.*, 1992 found that time is also a substational barrier.

This result is in agreement with Sitizia, (2001) who found that lack of time is considered one of the barriers to research utilization in nursing context. Moreover, Mehrdad & Salsali, (2008) reported that the major barriers to research utilization were that the nurses don't have to read research; facilities are inadequate for implementation.

McCaughan *et al.*, 2002 reported that Nurses clustered around four main perspectives on the barriers to research use; first is Problems in interpreting and using research products, which were seen as too complex, 'academic' and overly statistical. Also, Roxburgh, 2006 stated that he extent of nurses knowledge about research' and Skills to undertake research are 2 of six themes perceived by nurses to constrain from research participation.

A majority of studied sample in this study found that inability of nurses to deduce clinical research problems represents an important obstacle to applying nursing research with a highly statistically significant difference $P \le 0.000$. This is in agreement with Hefferin *et al.*, 1982 who stated that barriers to nurses' involvement in research related activities include inability to judge the value of research for clinical use and inability to identify researchable problems.

In addition to Sitizia, (2001) reported that lack of research skills is a barrier to research utilization in nursing context.

Finally, it appears that nature of most human beings about lack of change which requires motivation and retraining is an obstacle to applying nursing research perceived by a higher percentage of nursing staff. This is in agreement with Funk *et al.*, 1995 who stated that feeling of isolation of nurses due of lack of awareness of research lead to nurses not being convinced of the need or benefits of changing practice, seeing little personal benefits, being unwilling to try new ideas, and simply not seeing the value of research for practice were also perceived as barriers to successful utilization of research but by but by fewer of respondents.

Conclusion:

This study concluded that:

- Limited time and reduced numbers of demonstrators or clinical instructor appeared to be a significant obstacle to conducting nursing research at Al- Jouf University.
- Preference of most of patients to go a central hospital in large cities or to private sector, absence of a library for postgraduate which contain periodicals and journals, lack of centers of certain diseases as diabetes center, autism center or ophthalmology hospital...etc represented obstacles to conducting nursing research at Al- Jouf University.
- No postgraduate affairs in the university, absence of informing nursing staff about university's subscription to the digital library, net search is not adequate, lack of conferences and workshops in nursing, lack of exchange of experiences with other universities, lack of research cooperation and coordination as each conduct a research alone either individual, group, center, university or a nation, and lack of university fund for researches
- Administrative constrains as lack of time, money, and clinical equipments and inability of nurses to deduce clinical problems represented the most significant obstacles to applying results of nursing research at Al- Jouf University.

Recommendation:

This study recommended that:

- Presence of a number of clinical instructors with a master degree in clinical nursing to train the students.
- Presence of a library for the post-graduate with nursing journals and periodicals.
- Train university staff on how to use a digital library and informing them all to universities subscriptions' in different search engines.
- Educational conferences to the public to encourage them to use local health resources in Sakaka.

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