Barriers To, and Facilitators of, Research Utilization among Nurses Working in Taif Hospitals, Saudi Arabia

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Abstract: _Background: Research utilization in nursing has been a prominent concern for more than 20 years. Previous literature showed several factors impede or facilitate nurses to utilize research findings. Those factors mainly related to nurses competencies in understanding and applying research, other factors related to administration and resources for research._ _Design and sample:_ _a descriptive design was used to assess facilitation of, and barriers to, research utilization among 235 nurses selected randomly from various clinical nursing settings in Taif city._ _Tool:_ _Research tool was developed by the researchersandused to assess nurses' utilization of research. The validity and reliability were assured._ _Data Collection: The questionnaires were distributed to nurses working in various settings of hospitals in Taifcity. All ethical issues were considered. The response rate was 73%._ _Results: Several factors were considered barriers to research utilization. The barriers of highest percentages were lack of ability to do research (83.4%), insufficient time (81.7%), and lack of organizational support (73.6%).Other items were considered and analyzed._ _Implication: Finding out the barriers to research utilization may help administrative personnel set certain policies that can facilitate research use in nursing units. Nursing directors should encourage nurses to increase their knowledge and utilizing of research studies through readings and attending certain educational programs._

Keywords: research barriers, research utilization, evidence-based practice, nursing, health care.

1. Literature Review

Nursing practice is mainly influenced more by tradition, intuition and experience and less by scientific research (Leach , 2006).Recently, nursing practices started to utilize the concept of evidence-based practice which require the use of the best available research evidence and practical experience to make clinical decisions. This necessitates nursing awareness and utilization of research findings.

Research help nurses tocreate, validate and refine knowledge of clinical practice (Ertuğl &Onal, 2014).The application of latest evidence into clinical nursing practice improving the professional skills of nurses and the quality of nursing care. (Athanasakis ,2013)

Although there are clear differences in the concept of research utilization and evidence-based practice (EBP); both terms are sometimes used synonymously. Research utilization is part of EBP. (Ertuğl &Onal, 2014).

Previous studies revealed that the research utilization in 66.9% of the nurses was low (Mehrdad et al., 2009). Nurses rarely utilize research in clinical and education settings. Literature showed that clinical nurses face several barriers preventing them from involving in conducting or utilizing research findings. Several studies discussed barriers for inadequate utilization of research. The barriers were various but there were some barriers got the top scores in most studies. Those barriers were mostly related to nurses and nursing organization,

According to the reviewed studies, the top barriers to utilization of research include lack of administrative and health team support (Mehrdad, 2008;Amini, et al., 2012; Salsali, et al., 2009; Ertuğl &Onal, 2014), inadequate time for reading and applying research findings (Mehrdad et al. 2008; Amini, et al., 2012; Latifi, et al., 2012), poor research knowledge (Salsali, et al., 2009; Ertuğl &Onal, 2014)and skills (Patiraki et al., 2004).This results were supported by a study of 590 nurses conducted in China. The study found lack of authority, lack of time and language as the top barriers to research utilization (Patiraki, et al.,2004). Athanasakis (2013) reviewed 37 papers about research utilization and foundthat the previous three barriers got the top scores. While in other study, the top research utilization barriers were mainly related to the organization (Atkinson &Turkel, 2008).Other prominent barriersstated in studies were lack of timely and fast publication of research papers and lack of physicians' collaborations in implementing the results of studies, in addition to conflicting results (Latifi et al.,2012) , English publication of most articles (Latifi S et al., 2012; Heydari&Zeydi, 2014), and lack of close cooperation between university and hospital (Heydari&Zeydi, 2014). Studies also found some important barriers such as lack of access to an expert committee, poor skills in web searching, lack of money to conduct research (Heydari&Zeydi, 2014), difficulty of understanding statistics (Bryar et al, 2003), nurses beliefs of bad physicians cooperation at the research utilization process (Kajermo et al, 2008), andlack of legal protection(Patiraki, et al.,2004). Insufficient knowledge about research utilization was the most prominent reason for not utilizing research findings by students (Ertuğl & Onal, 2014).

Despite the barriers to research utilization, nurses have positive attitudes toward research (Wintersgill & Wheeler, 2012). To facilitate research utilization, nurses need to be informed about new research findings, to be trained on research methodology and to have access to library with a recent journals and internet (Heydari & Zeydi, 2014). According to findings of Patiraki (2004), the greatest facilitators to research utilization were managerial support, education to increase research knowledge and giving time for reading and implementing research. Other facilitators were cooperation of patients, funding, availability of expert person in research (Patiraki, et al.,2004) and positive attitudes and abilities of nurses (Ortana, 2002). The findings of research conducted by Chen et al (2013) on Taiwanese nurses included other facilitators such as increasing nurses' research efficacy, research-based information, and research experiences, in addition to the role of nursing administrators in creating a research-friendly climate and support implementing research findings.

The aim of this study was to describe barriers to research utilization in nursing practice in Taif city, Saudi Arabia. The study includes nurses' reading and interpreting skills, their participating in research, and extent of applying research findings.

2. Methodology

2.1 Sample

Convenience samples of 235 nurses were selected from 4 different hospitals in Taif city. The response rate was 73%. The sample included diploma and baccalaureate nurses of various levels of experiences who can read and interpret English language.

2.2 Data Collection

2.2.1 Tool
The study tool was developed by the researchers. The validity was examined and revised by a panel of nursing experts while reliability was tested on a pilot of nurses. The reliability was .78. Thelanguage items of questionnaire were clear. The scale consists of 40 items about three types of barriers, nurses, setting and organization. The Scale scores ranged from 0–160. The higher the scores the greater the barriers to research utilization.

2.2.2 Data collection and analysis
Self-administered questionnaires were distributed to nurses working in Taif city. Research population includes all nurses working in health institutions. The t-test and analysesof variance (ANOVA) were used to analyze nurses' responses.

2.2.3 Ethical considerations
All ethical issues were considered including consent forms. IRB approval and permission for data collection wereobtainedfromallhospitals included in the study.

3. Results

Nurses were selected from all sections of the institutions. The mean age of nurses was 28years. All nurses had either Baccalaureate (42.6%) or diploma (57.4) certificate. Their experiences range from no experience to 11 years experience. The mean work experience was 7.6years. Most nurses (68.6%) had research course in their curriculum. Some nurses (18.3%) attended some research lectures in their work as a part of continuing education. Only less than 11% read nursing journals. Majority nurses (86%) of nurses feel that the researchisimportant. About 28.7% involved in research studies either as a team member or as a participant. Most nurses (83.4%) find difficulties in performing and publishing nursing research. There are clear differences in the total score of research barriers betweenbaccalaureate nurses (134) and diploma nurses (108).

3.1 Barriers to Research Utilization

Nurses' responses were analyzed. The results showed the presence of several barriers to research utilization (Table 1). The barriers of high percentage were related to organization setting and nurse abilities.

Table 1: Percentage of barriers to research utilization from nurses' view

Barriers	Number	Percentage
inability to do research	196	83.4%
Lack of time for reading and conducting research	192	81.7%
No organization support for conducting research or applying research findings	173	73.6%
No authority for changing practice	161	68.5%
No support of health care providers	134	57%
English abilities	126	53.6%
Lack of research education	113	48%
Nurses inability to read and interpret research	102	43.4%
Lack of research resources	89	37.9%
Research results not easily available	74	31.5
No self benefit	71	30.2%
Difficulty Accessing to nursing journals	68	28.9%
Lack of research experts to help nurses in research	67	28.5%
Implication not clear	63	26.8%
Nurses perception of unimportance of utilizing research in practice	57	24.3%
Research change practice little	52	22.1%
Perception of inapplicability of Research findings	48	20.4%

The previous studies showed that the top barriers were related to authority of nursing and managerial support to perform research(Patiraki, et al.,2004) .In the current study, the topthree barriers were 'inability to do research', " lack of time to read and do research" and " lack of organizational support to conduct and apply finding of research" respectively. Nearly all of these barriers were listed among the top five barriers in other studieswhile other barriers such as lack of resources (library and internet) were considered not important barriers.

ANOVA showed significant ($P= 0.04$) differences between nurses who haveBaccalaureate degree compared with nurses with diploma. Nurses with diploma degree had a lower score on the barrier scale than nurses with graduate degree.Also, the score was higher in nurses who attended research courses than those who didn't. ($p= 0.02$).

4. Discussion

The result of this study showed that most nurses had research courses in their college and just few of them took such course in their working area.Similar to other studies(Ertuğ1 &Onal, 2014), nurses lack abilities to read and utilize research studies.According to thesestudies,therewerean association between research education and the utilization of research findings in practice (Walsh 1997, Rodgers 2000).Also nurses didn't have the time and administrative support to conduct research in their practice.In contrast to previous studies, more than half nurses (63%)stated that the research is important for nursing profession. Other nurses underestimate research, this may related to lack of adequate knowledge of importance of evidence-based practice, lack of in-service research education, lack of administrative support and lack of involvement in any research activities.Similar to other studies, the nurses thought that nursing research was important butimplementable for clinical practices. On the other hand, participants of current study stated that nursing curricula doesn't help them interpreting and performing research.

At least three of the top five barriers of this study agree with most nursing studies. These common barriers were nursing competencies to read and apply research, lack of time for reading research and lack of organization support.

In Taif hospitals, the workload and shortage of nurses have a great effect on their utilization of research findings in addition to inadequate in-serviceeducation about research and lack of research group in these hospitals. Facilitators were availability of computers and fast internet, cooperation of nurses with researchers.

5. Conclusion

This study revealed presence of many barriers to research utilization among nurses in Taif city. The nurses perceive importance of research but were unable to utilize them due to many barriers related to themselves, setting and administration. Nurses need administrative support and research education to facilitate their involvement in using research. There is a need to future research studies with a larger sample and to include view of nursing administrative in the study.

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