



AN EVALUATION OF NURSES' OPINIONS TOWARDS ORGANIZATIONAL RESEARCH CULTURE

Ayla Bayik Temel¹, Melek Ardahan^{2*}, Serap Odak³

Professor¹, Associate Professor², Department of Public Health, Faculty of Nursing, Ege University, Bornova-Izmir, Turkey. Ms³, Ege University Hospital of Medicine Faculty, Turkey.

ABSTRACT

In Turkey, obtaining medical knowledge and research should be an integral part of nursing practices. The research was to determine nurses' opinions related to research culture. The population of this descriptive research consisted of nurses working in a university hospital in the departments of internal medicine, orthopaedics, gynaecology, paediatrics and psychiatry units in a university hospital (N=840). The research was carried out with 157 nurses that volunteered to participate by non-probability sampling method. The study data was collected from a form which assessed the opinion of nurses towards the organizational research culture and a questionnaire prepared by the researchers that included questions concerning the socio-demographic features. Approximately 91% of nurses regard research as beneficial for nursing. It was stated by 57.9% of the nurses that nurses working in clinics were not interested in research, 57.3% do not read research articles, 77.7% do not have a subscription to journals, 57.3% do not base their practices on research results, and 61.7% do not collaborate in research activities undertaken by academic nurses. These findings are positive evaluations concerning the elements that constitute organizational research culture. Their research activities are limited; their ability to read and comment on existing research is inadequate. In order to change this situation, a structure which will facilitate cooperation among nursing schools, hospitals, nurses and the academic staff is needed.

Key words: Organization culture, Organizational research culture, Culture, Nurse, Turkey.

Corresponding Author

Melek Ardahan

Email:- melekardahan@hotmail.com

Article Info

Received 12/08/2015; Revised 20/08/2015

Accepted 04/09/2015

INTRODUCTION

Organizational culture is defined as the value judgments and behavioural system which affects the behaviour of the workers and appearance of the organization [1]. Beliefs, meanings, norms and values shared within organizational culture affect activities and behaviours. Thus, organizational culture shapes physical, cognitive and emotional behaviours. In the health care setting, it is of great importance to investigate and understand the type of knowledge that is valued and how this knowledge is utilized by nurses within the organizational culture of their organization [2].

When the organizational culture of successful organizations are examined, they are found to have a clear and definite philosophy concerning the way in which staff should carry out their duties and the majority of the staff

were aware of this and shared these values. Eren (2000) states that these values include the following beliefs; to do one's best, attention to detail is important to do the job well, that each person is an individual (not clear if this is the employee or the client/ customer), providing a service [3]. In terms of the organizational culture, the relevance or what research means to the staff and management should be clearly determined for the ability to bring about change and increase the quality of products and services [4].

Organizational research culture is defined as the shared values, beliefs and the resulting behaviours that may change in time. In other words, organizational research culture is related to the motives and values within an organization as well as its research aims and mission. For the organizational research culture, it is of great importance how the organization members perceive, classify, internalize the value of research or whether they



support and motivate the research of the organization [5]. According to Björnsdóttir (2001) if there is a common language, shared opinions, existing methods and processes about research in an organization, and if the workforce is appropriately encouraged to carry out and participate in research, it could be said that there is organizational research culture in this setting [6].

When the organizational research culture in our country is analysed, it is seen that historical, social, economic and political elements act as influential factors. In our country, nursing education had first started at the secondary, then at the high school level. Although education at higher level started in 1955, it continued for many years at the same level and courses on research techniques were not offered; thus, nurses were not enabled to gain awareness of questioning. The group of nurse workforce, the majority of which consisted of high-school graduates was not expected to conduct research. The nurses who could not develop a research culture before graduation could not find a working environment where research culture was developed or supported, also after their graduation. In the studies carried out in Turkey, it was determined that nurses did not believe in the value or importance of research [7]. All these findings demonstrate that organizational research culture was partly undeveloped at nursing educational institutions; however, it was intentionally left undeveloped at health institutions.

For the development of organizational research culture, what research means to the staff and management should be determined for each organization in achieving change and quality. Although it is easy for organizations to have relative success in changing the structure and practices relatively, but changing the culture of organization is more difficult and complicated [8]. In changing the organizational research culture, Rowland and Rowland (1994), Nash and Everett (1996) suggested a continuous definition of cultural elements for organizational culture and change, and setting new norms by continuous learning and practices [9, 10].

A strong research culture will exist and continue to improve in the working environment where research is valued, research activities are rewarded, thinking and research abilities are acquired and developed, resources are available, suggestions are elicited and accepted, and those undertaking research are supported and motivated [11, 12, 13, 14]. In an organization where the research culture has improved, the process of research exists in the organization within its all dimensions as an internal inspired activity. In the organizational research culture, it is important to understand how the workforce perceives, classifies and assimilates the value of the research and whether the organization supports and encourages the research [15].

It has been shown in many studies that a well-developed research culture not only in the organizations responsible for the education of nurses but also in

hospitals where nurses are trained and work is effective in raising awareness of the importance of research, so that nurses support and utilize the research [14, 16, 17]. In the hospitals where a research culture is developed, the cultural characteristics related to nursing services such as performance of duties, being eager for professional development in the context of professional development, continuing higher education, giving value to technical skills, making professional decisions, working together and taking responsibility are attached importance [18]. Nurses are supported in attaining excellence in nursing care, improving their knowledge and skills about research, and encouraged to participate in seminars, library, and workshops in order to acquire skills and knowledge. In such organizations, a research coordinator in nursing, quality development council and research working groups are formed. The Hospital and nursing college collaborate, they motivate the research activities of nurses, finance is provided and resources are supplied to support the research [17].

Obtaining medical knowledge and research should be an integral part of nursing practices. Nurses are at the most suitable position to evaluate the organizational research culture of their working environments, determine the barriers and opportunities and to recommend the necessary changes. The aim of this study was to determine nurses' opinions related to research culture.

METHODS

Sample

In a descriptive research like questionnaire survey, the sampling and sample size are important to answer research questions. Nurses are working in a university hospital in....., in the following departments; internal medicine, orthopedic surgery, gynecology, pediatrics and psychiatry units. (N=840). The research was carried out with 157 nurses, who volunteered to participate, by probability sampling method. Working directly in patient care in service was the criteria in selection of test subjects.

Data collection

The study data was collected from a form which assessed the opinion of nurses towards the organizational research culture and a questionnaire prepared by the researchers that included questions concerning the socio-demographic features of the target group of nurses. The questionnaire contained 20 questions to determine the socio-demographic features such as; age, marital status, education level, years in nursing, employment status, the unit they were attached to, and the opinions towards research on nursing, the responsibility nurses had to research, participating professional research activities, reading professional publications, and carrying out research. The instrument for measuring opinions towards organizational research culture consisted of 26 questions.



Since a questionnaire was used for data collection, validity and reliability studies were not conducted as it wasn't a scale. These questions were prepared from information gained in reviewing the related literature. Data was collected concerning the nurses' opinions to; professional beliefs, interest in research, motivation to carry out research, knowledge of research, self-improvement, professional values, loyalty to the institution, research utilization, features of working environment, sources of information and opportunities for research training. The nurses were asked to state their agreements on whether they feel the existence of the characteristics of research culture in the units they work by answering as "agree/don't agree". For the pilot study of the questionnaire, 5 nurses were interviewed; the form was found to be clear and understandable, and the interviews took 10-15 minutes.

The opinions towards the importance of research in nursing were measured several times. The nurses were asked to give their general opinion to organizational research culture on behalf of their colleagues in the unit in which they worked.

Ethical considerations

Before the investigation, the necessary consent was obtained from the Ethics Committee ofUniversity School of Nursing. Before implementing the study, a written permission was taken from the hospital administration. The aim of the study were explained to nurses has received oral. The study was carried out with the nurses who had volunteered to participate in the context of working conditions in a framework of ethical rules. Research has been done in accordance with the Declaration of Helsinki Principles.

Analysis

Results are expressed as mean± standard deviation or number (percentage). Categorical variables were compared by chi-square test. A p value <0.05 was considered as statistical significance. Statistical analyses were performed using SPSS 16.0 statistical software.

Results

Socio-demographic characteristics

Approximately 46 % of the nurses were between 21 and 30 years old (average age- 32.40± 6.86). The other socio demographic characteristics are shown in Table 1.

The distribution of the nurses' workplaces were gynecology (9.0%), pediatrics (7.6%), psychiatry (3.8%), internal medicine units (45.2%) and orthopedics units (34.4%). 70.1% were staff nurses, 10.8% were charge nurses, 6.4% were senior nurses and 12.7% had duties in other health care areas. 51.6% worked on night shift and 20.4% on rotation shift. 25.5% provided care for 1-10

patients in a day and 68.2% provided care for 11 or more patients in a day.

Opinions of nurses towards the importance of research in nursing

Approximately 91% of nurses regard research as beneficial for nursing, 82.2% state that nurses have responsibilities to carry out research. The rate of nurses who think that academicians have responsibility for conducting researches is 71.3% while those who think that nurses with managerial duties have this responsibility is 46.5 %.

Research information and participation

About 40% of the nurses have conducted a research while 59.9% have never conducted a research so far. 52.9% of the nurses participate in professional research whereas 47.1% do not take part. When the nurses' interpretation of the research findings was analyzed; 31.8% stated that they could make an interpretation while 6.4% stated that they were incapable of doing so and 61.8% left this question unanswered (Table 2). Of the nurses within the scope of the research, 38.2% followed professional publications while 61.8 % did not.

In the study conducted, the nurses stated that they read the journal ofUniversity, School of Nursing, Nursing Forum Journal, Hemar-Ge Journal, the Journal of Turkish Nurses' Association and they benefited from the internet (Table 2).

Opinions of nurses towards the organizational research culture

Nurses' opinions related to organizational research culture is included in Table 3.

Analysis of the relation between some characteristics and research information and participation

A statistically significant difference is not found between taking part in research and age groups ($\chi^2 = 10.375$, $P > 0.05$), marital status ($\chi^2 = 4.012$, $P > 0.05$) in this study. Moreover, a statistically significant difference is found between taking part in research and educational status ($\chi^2 = 5.526$, $P < 0.01$).

A statistically significant difference is not found between the ability to critically evaluate research and marital status ($\chi^2 = 8.945$, $P > 0.05$). Moreover, a statistically significant difference is found between the ability to critically evaluate research and age groups ($\chi^2 = 12.789$, $P < 0.05$), educational status ($\chi^2 = 23.450$, $P < 0.05$).

A statistically significant difference is not found between reading professional publishing and marital status ($\chi^2 = 13.245$, $P > 0.05$). Moreover, a rather statistically significant difference is found between reading professional publishing and age groups ($\chi^2 = 15.677$, $P < 0.01$), educational status ($\chi^2 = 31.289$, $P < 0.01$).



Table 1. Distribution of nurses according to their socio-demographic characteristics

Socio-demographic characteristics	Number(n)	Percent (%)
Age groups		
21-30	72	45.9
31-40	64	40.8
41-50	20	12.7
51-60	1	0.6
Marital status		
Married	92	58.6
Single	64	40.8
Widow	1	0.6
Education level		
Health vocational school	32	20.4
Associate degree	28	17.8
Bachelor's degree	93	59.3
Master's degree	4	2.5

Table 2. Distribution of nurses according to their research activities

FEATURES	Number (n)	Percent (%)
Take part in research		
Yes	83	52.9
No	74	47.1
Ability to critically evaluate research		
Capability	50	31.8
Not capability	10	6.4
No answer	97	61.8
Reading professional publishing		
Reading	60	38.2
Not reading	97	61.8
Professional material read (n=60)		
Journal of..... University School of Nursing	15	25.0
Journal of Nursing Forum	15	25.0
Journal of Research and Development in Nursing	6	10.0
Journal of Turkish Nurses Association	14	23.3
Internet/newspaper	10	16.7

Table 3. Distribution of opinions of nurses towards the organizational research culture

Opinions	Agree		Not Agree	
	n	%	n	%
Nurses used internet as a source of information	26	16.7	131	83.3
Nurses work together with other nurses in their unit to provide the best care	135	86.0	22	14.0
Nurses believe in attaining a high quality nursing service	132	84.1	25	15.9
Nurses believe in science	128	81.5	29	18.5
Nurses have a high sense of responsibility	99	63.1	58	36.9
Nurses have organizational commitment	108	68.8	49	31.2
Head senior nurses motivate the nurses to become involved in research	86	55.0	71	45.0
Nurses have understanding of and an ability to apply research skills	89	56.7	68	43.3
Nurses have sufficient knowledge to plan and carry out research	87	55.4	70	44.6



Nurses have the ability to read a research paper / article and comment on it critically	91	58.0	66	42.0
Nurses participate in research programs about research.	117	74.5	40	25.5
Nurses working in clinics were not interested in research	91	57.9	66	42.1
Nurses do not try to access research findings	90	57.3	67	42.7
Nurses do not read research articles	90	57.3	67	42.7
Nurses do not have a subscription to journals	122	77.7	35	22.3
Nurses do not base their practices on research results	90	57.3	67	42.7
Nurses do not collaborate in research activities undertaken by academic nurses	97	61.7	60	38.3
There is no support for research activities	95	60.5	62	39.5
Research is not a part of their daily work	117	74.5	40	25.5
Nursing practices are based on traditional knowledge	64	40.7	93	59.3
Nurses were well educated about research before graduation	76	48.4	81	51.6
Their colleagues participate in scientific meetings for research activities.	77	49.0	80	51.0
Nurses working in a clinic provide research reports in scientific meetings	68	43.3	89	56.7
There is a forming study groups	54	34.5	103	65.5
There is a nursing research unit.	64	40.7	93	59.3

DISCUSSION

Since over 50% of the nurses in this study group gained a bachelor's degree and nurses have research lectures during their university education, this may mean, they have more awareness and interest in research. Previous studies showed that a higher educational background had a positive effect on the opinions of nurses towards research [19,20].

In this study nurses did believe in the necessity of research for the nursing profession. Because, the nursing profession is based on the continuing development of medical knowledge and research facilitates this growth [21]. Nurses having positive opinions toward research increase their ability to access and use the results of research, furthermore, the opinions of those in senior nursing positions are important [12,22]. In the study, in Scotland, carried out by Hundley et al (2000) the factors motivating nurses to become involved in research were examined. The research showed that nurses who were interested in research were interested in changing the existing practices, had high self-confidence, could see the benefits of the research, had career ambitions, and were interested in studying and writing. In spite of that, it was determined that nurses thinking that research is not necessary for professional development did not have any support, found the magazines expensive, did not see the research as a role of nurses and that it was not possible for them to apply the research in practice as they did not execute, read or utilize research [20].

The fact that more than half of the nurses in this study have not carried out any research seems to be based on the following three reasons; during their education the research lectures had been given theoretically, they had not carried out any research during their education and they do not practice their research knowledge. But, in this study, nurses participate in professional research.

Thus, nurses believe that will contribute to the development of professional knowledge. In contrast to, Durmus, et al. (2001) determined the following reasons for nurses who do not participate in research; 45.7% said it was due to a busy working environment and the management's negative attitudes, 40.9% put forward family and economic reasons, and 13.3% said they had lack of knowledge about research [14].

In this study, nurses generally cannot comment on research results. Similarly, in many countries, nurses feel inadequate to read, understand, carry out research and comment [19, 20, 23]. It was also seen that the nurses' skills of participating in, comprehending, planning and implementing research were not adequate and that they were not supported by their superiors. Since nurses are not adequately prepared for developing necessary skills for doing research, they feel inadequate in doing, reading and comprehending research [19, 20, 23]. The fact that nurses lack adequate education, knowledge and skills, thus are incapable of reaching research findings is a barrier determined in other countries as well [24]. As nurses cannot comprehend, interpret or do not believe in researches, they cannot utilize them or do not know how to make use of their findings [25]. In analyzing nurses' ability to assess the results of research, lack of education and knowledge and skills were among the difficulties determined [24, 26]. Walsh (1977) commented on the fact that researchers write research papers for their academic colleagues is a reason why the nurses may not be able to understand the research and give up trying to read articles and papers [27]. This situation results in the forming of two different groups; researcher nurses and clinician nurses who have different aims, language and values in a tradition based environment, [7,28] however, since research is vital to the development of professional



knowledge, it has to be seen as the responsibility and job of all the nurses in an institution. In the separate studies by Bryar, et al. (2003), Kajermo, et al. (2000), Paraho (2000), Clifford and Muray (2001), Parahoo and Mc Caughan (2001), Thompson, et al. (2001), in the context of the barriers to research utilization, nurses gave the following reasons; lack of time, negligence of head nurse, lack of friend support, difficulty in accessing findings, research reports and not being able to understand statistical analyses, lack of confidence in commenting on research results, institutional and cultural obstacles, individual skepticism, the research having been carried out on small samples, the research not having validity or credibility, nurses being dependent on doctor and the management in applying new process and practices [25,29,30,31,32,33].

In this study, the number of nurses that read journals and professional publications was insufficient. This result suggests that nurses do not subscribe to the journal. This result supports the nurses who had participated in research did not agree with the notion that nurses subscribe to research journals. This tends to imply that nurses do not read research papers, and they are lacking in the practice of applying new scientific knowledge. Thompson et al. (2001) determined that to solve the problems of nurses in clinics in the United Kingdom, instead of applying written and electronic sources, they should apply the knowledge of consultant nurses. They stated that nurses could reach guides and protocols as sources but that written sources were old [33]. Bonner and Sando (2008) determined that nurses require specific research education, clinical nursing leadership and work environments conducive to ensure practice is evidenced-based [34].

In this study, nurses stated that their colleagues do not participate in research activities in collaboration with academic nurses. Because, the nurses carrying out researches in our country and world are restricted to ones doing career in the universities. In the Nursing Research Journal (1988), nursing research was analyzed over a 10 year period and it was found that 56.0% of the researches were carried out by nurses with a doctorate, 36.0% of these researches concerned nursing practice and 64.0% were descriptive [35]. In three national nursing congresses, 33.0% of total 260 announcements belonged to clinical nurses. As it is understood from these data, the participation of clinics in research is limited [36].

In this study, nurses stated that their colleagues did not attend scientific meetings for research activities. This result suggested that nurses stimulated or such seminars ignored for hard working. Nurses' attitudes towards research in our country are examined. Durmuş et al. (2001) determined that 45.7 % of nurses have become the focus of the work environment; negative attitudes of managers, 13.4% do not do research because of the lack of

information. In this study, nurses did not agree with the opinion that research groups were formed in clinics and research was a part of daily work at the clinics. But, Titler et al. (1994) carried out research in Iowa University hospital in the USA and concluded that research is the responsibility and role of everybody from student to nurse [37].

In this study, research activities are determined to be affected by age, marital status and education level in our study, as well. Similarly, Estabrooks et al. (2003) find out that professional characteristics, educational status and other socio-economic factors, beliefs and opinions of the nurses are effective in their taking part in the research activities and information seeking (38).

CONCLUSION

The nurses in this study became aware that research is necessary and provides information about the developments in the field, particularly in terms of patient care. They believe that their colleagues are loyal to the institutions in which they work and participate in in-service education/ training programs. These findings are positive evaluations concerning the elements that constitute organizational research culture. However, there are also some negative views. Their research activities are limited, their research skills need to be developed and their ability to read and comment on existing research is inadequate. The nurses stated that there are no research groups in clinics, which nurses do not subscribe to journals or professional publications, there is no collaboration between academicians and nurses, and research activities are considered a part of everyday work. In accordance with the results obtained recommendations in below can be made.

Nursing research units have to be created, the collaboration between nurses and academicians should be increased, the opportunities for accessing knowledge should be provided, habits of reading and joining scientific meetings should be encouraged to develop the organizational research culture and develop the nurses' awareness of research issues.

As a result, the scientific basis of nursing practice in terms of professionalism is required. This requirement is unavoidable. If they apply research-based care, professional organizations, institutions, researchers and all nurses should take individual and collective responsibility on this issue. A research culture should be created so that reading and using research to develop nursing as a requirement to be felt by nurses.

ACKNOWLEDGEMENT: None

CONFLICT OF INTEREST:

The authors declare that they have no conflict of interest.



REFERENCES

1. Okay A. (2003). *Kurum Kimliği* (Institutional Identity). 4th Edition. İstanbul: Şefik Press, 211-240.
2. Findlay SS, Biddle KG. (2005). Understanding how organizational culture hopes research use. *JONA*, 35,359-365.
3. Eren E. (2000). *Örgütsel Davranış ve Yönetim Psikolojisi (Organizational Behavior and Management Psychology)*. İşletme Ekonomisi Dizisi (Administration Economics Series). 6th Edition. İstanbul: Beta Press.
4. Scott, T., Mannion, R., Davies, H. and Marshall, M. (2003). The quantitative measurement of organizational culture in health care: a review of the available instruments. *Health Services Research*, 38, 923-945.
5. Thompson DR. (2003).Fostering a research culture in nursing. *Nursing Inquiry*, 10(3),143- 144.
6. Björnsdottir K.(2001). Language research and nursing practice. *Journal of Advanced Nursing*, 33(2), 159-166.
7. Durmuş B, Aylaz R, Öztürk H. (2001). Elazığ il merkezindeki hastanelerde çalışan hemşirelerin hemşirelik araştırmalarına ilişkin görüşlerinin incelenmesi (An analysis of the opinion of the nurses employed at hospitals in the center of Elazığ on nursing research). *Hemşirelik Forumu (Nursing Forum)*, 4(1), 12-16.
8. Kljakovic M.(2009). Developing a teaching research culture for general practice registrars in Australia: a literature review. *Asia Pac Fam Med*, 8(1), 6.
9. Rowland HS, Rowland BL. (1994). *Nursing Administration Manual*, Maryland: An Apsen Publication.
10. Nash GM, Everett LN. (1996). Cultural cohesion versus collision. A model for facilitating organizational mergers. *JONA*, 26(7/8), 11-18.
11. Fink R, Thompson CJ, Bonnes D. (2005). Overcoming barriers and promoting the use of research in practice. *J Nurs Adm*, 35(3),121-129.
12. Pearcey P.(1995). Achieving research-based nursing practice. *Journal of Advanced Nursing*, 22(1), 33-39.
13. May A, Mulhall A, Alexander C. (1998). Bridging the research-practice gap: exploring the research cultures of practitioners and managers. *Journal of Advanced Nursing*, 28(2), 428-437.
14. Corchon S, Watson R, Arantzamendi M, Saracibar M. (2010). Design and validation of an instrument to measure nursing research culture: the Nursing Research Questionnaire (NRQ). *J Clin Nurs*, 19(1-2), 217-226.
15. Shaw M.(1993). The discipline of nursing: historical roots, current perspectives, future directions. *Journal of Advanced Nursing*, 18(10), 1651-1656.
16. Kajermo NK, Nordström G, Krusebrant A, Björvell H. (1998). Barriers to and facilitators of research utilization, as perceived by a group of registered nurses in Sweden. *Journal of Advanced Nursing*, 27(4), 798-807.
17. Retsas A, Nolan M. (1999). Barriers to nurses' use of research: an Australian hospital study. *International Journal of Nursing Studies*, 36(4), 335-343.
18. Coeling HV, Simms LM. (1996). Understanding work group culture on rehabilitation units: the key to facilitating group innovation and promoting integration. *Rehabilitation Nursing*, 21(1), 7-12.
19. Parahoo K.(1998). Research utilization and research related activities of nurses in Northern Ireland. *International Journal of Nursing Studies*, 35(5), 283-291.
20. Hundley V, Milne J, Leighton-Beck L, Graham W, Fitzmaurice A. (2000). Raising research awareness among midwives and nurses: does it work? *Journal of Advanced Nursing*, 31(1), 78-88.
21. Perry L, Grange A, Heyman B, Noble P. (2008). Stakeholders' perceptions of a research capacity development project for nurses, midwives and allied health professionals. *J Nurs Manag*, 16(3), 315-326.
22. Retsas A. (2000). Barriers to using research evidence in nursing practice. *Journal of Advanced Nursing*, 31(3), 599-606.
23. Dunn V, Crichton N, Roe B, Seers K, Williams K. (1997). Using research for practice: a UK experience of the Barriers Scale. *Journal of Advanced Nursing*, 26(6), 1203-1210.
24. Dyson J. (1997). Research: promoting positive attitudes through education. *Journal of Advanced Nursing*, 26 (3), 608-612.
25. Parahoo K. (2000). Barriers to and facilitators of research utilization among nurses in Northern Ireland. *Journal of Advanced Nursing*, 31(1), 89-98.
26. Crane J. (1995). The future of research utilization. *Nursing Clinics of North America*, 30 (3), 565-677.
27. Walsh M. (1997). How nurses perceive barriers to research implementation. *Nursing Standard*, 11 (4), 34-39.
28. Andrew N, Ferguson D, McGuinness C. (2008). Promotion of a community culture in nursing research. *Nurs Times*, 104(46), 30-33.
29. Bryar RM, Closs SJ, Baum G, Cooke Jo, Griffiths J, Hostick T. et al. (2003). The Yorkshire barriers project: diagnostic analysis of barriers to research utilization. *International Journal of Nursing Studies*, 40(1), 78-84.
30. Kajermo NK, Nordström G, Krusebrant A, Björvell H.(2000). Perceptions of research utilization: comparisons between health care professionals, nursing students and a reference group of nurse clinicians. *Journal of Advanced Nursing*, 31(1), 99-109.
31. Clifford C, Murray S. (2001). Pre-and post-test evaluation of a project to facilitate research development in practice in a hospital setting. *Journal of Advanced Nursing*, 36(5), 685-695.



32. Parahoo K, Mc Caughan EM. (2001). Research utilization among medical and surgical nurses: a comparison of their self-reports and perceptions of barriers and facilitators. *Journal of Nursing Management*, 9(1), 21-24.
33. Thompson C, McCaughan D, Cullum N, Sheldon TA, Mulhall A, Thompson DR. (2001). The accessibility of research-based knowledge for nurses in United Kingdom acute care settings. *Journal of Advanced Nursing*, 36(1), 11-12.
34. Bonner A, Sando J. (2008). Examining the knowledge, attitude and use of research by nurses. *J Nurs Manag*, 16(3), 334-343.
35. Moody LE, Wilson ME, Smyth K, Schwartz R, Tittle M, Vann C. et al. (1988). Analysis of a decade of nursing practice research: 1977-1986. *Nursing Research*, 37(6), 374-379.
36. Akdemir N, Bedük T, Abaan S.(1986). Hemşirelikte bilim uzmanlığı ve bilim doktorası programları gereği araştırma yapmış eğitim elemanlarının karşılaştıkları güçlükler (Difficulties faced by instructors who conducted research as required by scientific expertise and scientific PhD programs). *Türk Hemşireler Dergisi (Turkish Nurses Journal)*, 36, 25-29.
37. Tittler MG, Kleiber C, Steelman V, Goode C, Rakel B, Barry-Walker J. et al. (1994). Infusing research into practice to promote quality care. *Nursing Research*, 43 (5), 307-313.
38. Estabrooks CA, Floyd JA, Scott-Findlay S, O'Leary KA, Gushta M. (2003). Individual determinants of research utilization:a systematic review. *Journal of Advanced Nursing*, 43(5), 506-520.

