

Obstacles Faced by Nurses Employed in Sakarya Province Public Hospitals in Doing Research and Using Research Results in Patient Care

Işık Atasoy, RN, Msc¹ Gülsüm Kaya, RN, Msc² Şeyma Trabzon, RN, Msc²

¹ Sakarya University, Faculty of Health Sciences, Lecturer, Esentepe Campus, Sakarya

² Sakarya Training Research Hospital, Infection Nurse, Sakarya

² Sakarya University, Vocational Health High School, Lecturer, Esentepe Campus, Sakarya

Abstract

Objectives: This study aimed to present public hospital nurses' views related to research and use of research results in patient care, identify the obstacles in doing research and using research results in patient care and assess their suggestions related to the issue.

Method: The study was carried out in 2012 with the participation of 525 nurses employed in Sakarya Province Public Hospitals. Following the literature review, a question form was prepared to assist in data collection. Obtained data were analyzed with the help of SPSS for Windows 16.0 package program. Means, frequencies and chi-square test were used in data analysis.

Results: It was found that practicing nurses were not informed of the results of studies conducted in their fields, were not able to receive support from their institutions regarding their research interests and did not attend scientific meetings related to nursing. They would like to be informed about clinical research during in-service training activities and in the courses they attend. The biggest obstacle was observed in the following statement: "It is a problem to take a leave of absence to attend congresses and conferences".

Conclusion: Institutional policies were found to be the primary obstacle in nurses' research endeavors. Nurses should be provided with financial support, training and course opportunities to do research. It was observed that increases in educational levels increased the rates of benefiting from research results in patient care, participating in research processes regarding any nursing filed and following publications in nursing. Relationship between nurse views and educational levels were found to be significant ($p < 0.05$).

Keywords: Nurse, obstacle, research.

I. Introduction

Research is an obligation to improve nursing profession scientifically and increase the quality of patient care. However, some of the nurses in Turkey and around the world still practice their professions based only on personal experience. Recently, nurses are expected to valorize and exploit research results in order to ensure that quality of patient care increases [1]. Use of study results in nursing practice will provide improvements in the quality of nursing care and nursing image in the community. Theoretical and practical training in nursing should be built on a scientific foundation [2]. Nursing research forms the basis of clinical practices and develops professional responsibility in terms of ideal patient care. Investigation of developments in the field of nursing around the world shows that research-based practice is crucial for nurses. Nursing students should be provided with research skills. Nurses should have awareness in issues related to research in order for them to appreciate and recognize the value of research. Hence, research topics should be fundamental elements of undergraduate and graduate training [3]. Although, recently, nurses have been aware of the importance of research in patient care, they are observed not to utilize research findings sufficiently [4].

A plethora of studies on the topic determines that, in general, nurses believe in the benefits of research but are unable to make use of research findings due to various reasons [5,6,7]. Researchers emphasize the fact that personal and professional characteristics of nurses should be investigated to ensure implementation of practices based on research findings and improvements in nursing care. Personal characteristics of nurses such as beliefs, attitudes, educational levels, behaviors related to doing research about an access to knowledge and their professional qualities are believed to affect the use of research results in patient care [8, 9].

Although modern health care systems have considerably changed and expectations from nurses are on the increase, there is an immense shortage in the field of nursing in terms of generating research and reflecting findings in practice [10]. Studies in the field of nursing are increasing in Turkey and it is identified that the studies are mostly conducted and published by nurse academicians however clinical nurses do not choose to utilize these findings due to certain reasons. Therefore, research regarding problems in real practice situations is needed to be undertaken in cooperation with nurse academicians and clinical nurses in Turkey [11, 12, 13].

Platin states that “Research in Turkey mostly includes methodological inadequacies and points to the need for providing information about research skills for nurses and research conducted abroad is not followed by nurses due to lack of sufficient foreign language skills” [13].

II. Methods

2.1. Study Design

Current study organized as basic descriptive research aimed to present research skills and use of study findings in patient care by nurses employed in public hospitals in 2012, to determine the obstacles faced by nurses in this regard and assess their suggestions.

2.2. Setting and Samples

The descriptive study was conducted on the 525 nurses employed in Sakarya province public hospitals. A survey form developed following literature review was used in the study to collect data. Data were collected rigorously by taking into consideration the most available times for nurses to obtain data. Before implementing the survey form, nurses were informed of the goals of the study and they were asked to complete the form carefully and in full but not to provide their identities.

2.3. Ethical Considerations

Prior to the study, permission was sought from Sakarya University Medical Faculty Ethics Committee, Sakarya Governorship and Sakarya Provincial Directorate of Health. Principle of voluntary participation was adhered to as well (Ethical No:050.01.04/21).

2.4. Measurements and Instruments

Likert type survey prepared subsequent to literature review was used in the study to collect data. The initial survey form was composed of 4 sections and 43 items. Each statement in the form included four options: “Agree”, “Neither agree nor disagree”, “Disagree” and “No idea”. After the data collection tool was prepared, a pilot implementation was carried out on 30 nurses and unclear and unintelligible statements were reviewed and changed to finalize the form. Before implementing the survey form, nurses were informed of the goals of the study and they were asked to complete the form carefully and in full but not to provide their identities. In the form composed of 43 statements, the first section included 7 questions related to introductory characteristics of nurses, the second section included 11 statements regarding nurse views on research, the third section was composed of 9 statements on nurse views on the obstacles related to use of research results, the third section included 8 questions regarding the suggestions of nurses as to how to benefit from research results and the fifth section was composed of 8 statements regarding professionalism criteria in nursing. Obtained data were analyzed by using SPSS for Windows 16.0 package program. Distribution of frequency and chi square test was used in data analysis.

2.5. Data Collection and Procedure

Current study was conducted face to face with 525 voluntary nurses by visiting hospital services in 4 separate public hospitals. Each nurse was accompanied until the survey form was completed. The nurses were asked to respond realistically and in earnest. They were explained that information provided in the survey form was to be kept confidential and would only be used for scientific research purposes. Nurses were thanked for their participation and contribution when the survey interview was completed.

2.6. Data Analysis

Obtained data were analyzed by using SPSS for Windows 16.0 package program. Means, distribution of frequency and chi square test was used to analyze the data obtained from the nurses.

2.7. Limitations of the Research

Although reliability and validity analyses were not undertaken, the data collection form used in the study was structured based on literature review and expert views. Despite this limitation, it is believed that findings obtained in the current study on nurse views regarding research and use of research findings in patient care will provide basic and fundamental information for nurses and academicians.

2.8. Conflict of Interest

The authors declare no conflict of interest

III. Results

Socio-demographic characteristics of nurses: A total of 525 female (n=438, 83.4%) and male (n=87, 16.6%) nurses participated in the study. It was identified that the majority of participating nurses were married (n=332, 63.2%); in the 26-33 age range (n=216, 41.1%); worked for 10 years (n=237, 45.1%); worked as service/circulating nurses (n=414, 78.9%) and had bachelor degrees (n=223, 42.5%). It was observed that participating nurses worked in internal medicine (n=32, 6.1%), surgical (n=87, 16.6%); intensive care (n=81, 15.4%); emergency (n=76, 14.5%) and other services (n=249, 47.4%).

Table.1 Nurse Views on Research (n=525)

Statements on research based on nurse views	Disagree		Neither Agree nor disagree		Agree		No idea	
	N	%	N	%	N	%	N	%
1- Research should only be conducted by nurse academicians	271	51.6	58	11.0	175	33.3	21	4.0
2-New research findings should be reflected on nursing practices	25	4.8	47	9.0	443	84.4	10	1.9
3- Support should be received from the institution for research	29	5.5	12	2.3	483	92.0	1	0.2
4- Nurses should attend scientific meetings and research in the field of nursing	25	4.8	15	2.9	478	91.0	7	1.3
5- Nurses should be provided with information about the results of scientific studies conducted in the field of nursing	21	4.0	7	1.3	492	93.7	5	1.0
6-Nursing practices should be under the guarantee of laws	18	3.4	15	2.9	479	88.2	5	1.0
7-An organizational culture that takes nurse care into consideration should be established	30	5.7	27	5.1	463	88.2	5	1.0
8- Nursing practices should be provided based on habits and experiences	178	33.9	92	17.5	244	46.5	11	2.1
9- Nursing practices based on research should increase knowledge related to nursing	28	5.3	39	7.4	439	83.6	19	3.6
10- Research should be provided to ensure nursing practices based on proof	19	3.6	34	6.5	459	87.4	13	2.5
11- Nursing practices based on proof should increase the quality of patient care	20	3.8	36	6.9	455	86.7	14	2.7

Table.2 Obstacles Faced by the Nurses in Using Research Results (n=525)

Statements provided by nurses regarding the obstacles to using research results	Disagree		Neither Agree nor disagree		Agree		No idea	
	N	%	N	%	N	%	N	%
1-Research is not relevant to nursing practices	145	27.6	150	28.6	175	33.3	55	10.5
2- Nurses do not believe in the accuracy of research results	186	35.4	139	26.5	113	21.5	87	16.6
3- Advances in nursing practices are not beneficial to patient care	326	62.1	90	17.1	75	14.3	34	6.5
4- Time is insufficient to undertake research based nursing practises	90	17.1	119	22.7	273	52.0	43	8.2
5- Nurses do not know how and where to access research information	125	23.8	102	19.4	270	51.4	28	5.3
6-Nurses have difficulty in understanding and assessing research reports	128	24.4	113	21.5	233	44.4	50	9.5
7-Nurses refrain from the pressure that would be received from colleagues adopting traditional nursing practices	184	35.0	102	19.4	214	40.8	25	4.8
8-Receiving leaves of absence to attend congresses and conferences is problematic	114	21.7	53	10.1	334	63.6	24	4.6
9- Hospital administration does not allow using research results in practice.	157	29.9	145	27.6	127	24.2	96	18.3

Table.3 Nurse Suggestions Regarding the Use of Research results (n=525)

Statements provided by nurses regarding the use of research results	Disagree		Neither Agree nor disagree		Agree		No idea	
	N	%	N	%	N	%	N	%
1-Research and development centers should be established in hospitals and family health care centers	30	5.7	36	6.9	433	82.5	26	5.0
2-Research results should be announced	14	2.7	19	3.6	490	93.3	2	0.4
3- Clinical studies should be explained in in-service training activities and in courses	19	3.6	12	2.3	488	93.0	6	1.1
4- Financial support should be provided to nurses for nursing research	12	2.3	32	6.1	472	89.9	9	1.7
5- Nursing practices should be guaranteed by laws	10	1.9	17	3.2	493	93.9	5	1.0
6-Nursing tasks and responsibilities should be described by laws.	11	2.1	29	5.5	481	91.6	4	0.8
7-Nurse academicians and clinical nurses should conduct research studies in cooperation	19	3.6	61	11.6	430	81.9	15	2.9
8-Research and statistics courses should be given more importance in training.	30	5.7	81	15.4	392	74.7	22	4.2

Table.4 Distribution of Participation in Research Processes Based on Some Nurse Characteristics (n=525)

<i>Participation in Research Processes</i>							
<i>Age</i>	<i>Yes</i>		<i>No</i>		<i>Test</i>		
	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>			
18-25	47	38.5	75	61.5	$\chi^2=15.633$ P= 0.001		
26-33	74	34.3	142	65.7			
34-41	24	17.9	110	82.1			
42 and higher	14	26.4	39	73.6			
Marital Status							
Married		88	26.5	244	73.5	$\chi^2= 6.111$ P= 0.013	
Single	71	36.8	122	63.2			
Level of Education							
health vocational high school		27	20.8	103	79.2	$\chi^2= 64.315$ P= 0.000	
Two-year degree	19	12.5	133	87.5			
Bachelor degree	99	44.4		124	55.6		
Graduate degree		14	70.0	6	30.0		
Period of Employment							
Less than 1year	16	27.1	43	72.9	$\chi^2= 9.061$ P= 0.028		
1-10 years		87	36.7	150			63.3
11-20 year		42	25.8	121			74.2
21+		14	21.2	52			78.8
Department							
Internal medicine	8	25.0	24	75.0	$\chi^2= 6.410$ P= 0.171		
Surgery	29	33.3	58	66.7			
Intensive care	33	40.7	48	59.3			
Emergency	22	28.9	54	71.1			
Other *	67	26.9	182	73.1			

* Polyclinics are combined under this heading.

Table. 5 Distribution of Professional Nurse Criteria Based on Level of Education (n=525)

<i>Statements</i>	<i>Level of Education</i>		<i>No</i>	<i>Yes</i>	<i>Test</i>
1- I benefit from research results in patient care (%40.8) $\chi^2=12.968$	health vocational high school		56(43.1)	74 (%56.9)	P=0.005
	Two-year degree			90(%59.2)	
	Bachelor degree		106(%47.5)	117(%52.5)	
	Graduate degree		5 (%25)	15 (%75)	
2- I follow publications in nursing (%40.8) $\chi^2=14.649$	health vocational high school		64(% 49.2)	66(%50.8)	P=0.002
	two year degree		98(%64.5)	54(%35.5)	
	Bachelor degree		126(%56.5)	97(%43.5)	
	Graduate degree		5 (%25)	15(%75)	
3- I am a member of an association related to nursing $\chi^2=6.090$	health vocational high school		104(%80.0)	26(%20)	P=0.107
	two year degree		123(%80.9)	29(%19.1)	
	Bachelor degree		166(%74.4)	57(%25.6)	
	Graduate degree		12(%60)	8(%40)	

IV. Discussion and Conclusion

525 voluntary nurses employed in public hospitals participated in the current study. Regarding the descriptive characteristics of nurses, Table 1 shows that 83.4% of the participating nurses were women, 63.2% were married, 41.1% were in the 26-33 age range, 42.5% had bachelor degrees and 78.9% worked as service/circulating nurses.

Examination of nurse views on research (Table1) shows that nurses believed research should only be undertaken by nurse academicians (%51.6). Milner et. al. (2006) also emphasized that clinical nurses did not know how to use research results in patient care, that this responsibility belonged to nurse academicians and that it was important for nurse academicians and clinical nurses to work in cooperation [14]. 88.2% of the nurses stated that an organizational culture that takes nursing care into consideration should be established and support should be received from their institution in terms of research. Parohoo's 2000 study in Northern Ireland, Oh's 2008 study in Korea, Omer's 2012 study in Saudi Arabia and 2013 study by Chen et. al in Taiwan also

determined that administrator support was important in research and politicians and administrators should support the use of research results in nursing practices [15,18,20,28].

The majority of nurses believed that research results obtained in the field of nursing should be reflected in practice and that use of research results in patient care would increase the quality of nursing services. They suggested the establishment of research and development centers in hospitals and family health care centers in order to improve nursing as a scientific profession. However, 46,5% of the nurses stated that it was more important to benefit from habits and experience in patient care rather than using research results and 40,8% of the nurses mentioned refraining from the pressure that would be received from colleagues who adopted traditional nursing practises as an obstacle facing the adoption of using research results in practise. In that case, it can be argued that nurses were aware of the importance of research but they were not fully informed as to how they could utilize research results in practise. 91% of the nurses were found to attend scientific meetings (congresses, symposiums, seminars). It was emphasized that attending scientific meetings would contribute to professional development [14,17]. Although nursing legislation that guarantee nursing practises by laws exist in Turkey (Official Gazette, 2010-27515;2011-27910), there are still ongoing problems in medical institutions[21].

Examination of obstacles face by nurses in using research results in practice (Table 2) shows that the biggest obstacle was regarded by 63.6% of the nurses as the lack of permission to attend congresses and conferences. This restraint on attendance to scientific meetings may be due to lack of sufficient number of nurses and the high work load in hospitals. Lack of sufficient time to undertake research based nursing practices was also regarded among the most important obstacles facing research based nursing practices and this finding is consistent with the findings of many other studies in the field. Tan et. al's study (2012) in Turkey also emphasized lack of time among the most crucial obstacles [19]. Shaffer et. al.'s (2013) study conducted in America also determined lack of time and lack of information about the research process as obstacles [27]. Some studies in Turkey in the field of nursing found that nurses believed in the benefits of research in general but did not feel research results could be applied to clinical environments. 33.3% of the nurses in the current study also believed that research results were nor relevant to practice. Nurses believed that hospital administration should support and encourage nurses in terms of doing research and using research results in practice [22].

Examination of nurse suggestions in using research results in practice (Table 3) shows that the 93% of the nurses suggested providing information on research with the help of in-service training and courses. 74.7% of the nurses stated that research and statistics classes should be prioritized in nursing training. McCleary and Brown's (2003) study identified that research knowledge obtained during either formal training or in research courses after graduation positively affected the use of research results in practice [16]. Study undertaken by Yoder et. al. (2014) shows that nurses expected support from nurse academicians in using research results [26]. While health care services are continuously changing both in Turkey and in the world, description of nurse tasks and responsibilities is also renewed. Work towards renewal of nursing legislation and description of the profession in Turkey is ongoing [23].

Furthermore, examination of professional criteria in nursing shows that 51% of the nurses in the current study stated that they benefited from research results in patient care. The others were found not to use research results sufficiently due to lack of knowledge about how to access the information related to research (51.4%) and lack of number of nurses with English skills (60.8%). Kang's (2015) study with nurses stated the fact that presentation of research results in English as the biggest obstacle in comprehending and perceiving them [25]. Veeremah's (2004) study conducted to determine the use of research findings in their work showed that 50.5% of the nurses used research results in their professional life whereas the others had inadequate knowledge in interpreting research results. The study conducted in Turkey by Emiroğlu et. al. (2005) expressed that 50.2% of the nurses benefited from research results in care. Both the results of the current study and those of other studies conducted in Turkey presented that ratios in participation in research, membership in associations, following scientific publications and attendance in professional meetings were low. However, it is emphasized that membership to professional associations, attendance in scientific meetings, following periodicals, using computers and knowledge and attitudes related to research are effective in terms of utilizing research results in practice and that these characteristics should be developed in nurses [14,17]. Computers will continue to affect nursing profession as they do today. By using computers, nurses are able to record nurse care both legally and professionally [24].

Distribution of participating in research processes based on some nurse characteristics (Table 4) accepted the level of significance as $p < 0.05$. It was found that young (in the 18-25 age range), single nurses with graduate degrees and less than 10 year work experience participated in research processes to a higher extent compared to others. This difference between the groups was found statistically significant ($p < 0.05$). This finding is consistent with that of 2008 study conducted by Kelleci et. al.

Examination of the distribution of professional criteria in nursing according to level of education (Table 5) shows that the higher the level of education, the higher the rate of benefiting from research results,

participating in research processes related to nursing and following publications in the field of nursing ($p < 0.05$). this finding is consistent with the finding of Veeramah's 2004 study. Another study conducted by Retsas in Australia in 2000 found that 65.0% of the nurses read professional periodicals at least once a month however only 4.0% of those periodicals published research articles.

V. Conclusion

Since the study was conducted only on nurses employed in Sakarya province public hospitals, it is not possible to generalize findings to all nurses and medical institutions. The study can only be generalized to the institutions in which it was carried out. It is believed that conducting similar studies with larger sample sizes both in national and international platforms will increase the effectiveness of results.

Based on nurse views, findings of the current study determined that nurses would like to receive information about the results of scientific studies in the field of nursing, they viewed the difficulty to obtain formal leave from their institutions to attend congress and conferences an obstacle to the use of research results, they wanted to be provided with information on clinical research in in-service training activities and in courses they attended and would like to have nursing practices guaranteed through legislation.

It was identified that the ratio of participation in research processes was low for the nurses and the majority of nurses taking part in research was writing their thesis. It was also determined that nurses benefited from research results in patient care, more than half of them attended national scientific meetings and did not know English.

5.1. Suggestions

In line with the suggestions provided by the nurses, current study also proposes establishment of research centers especially in large hospitals, increasing administrative support for research, establishing raining to present research results and providing nurses with sufficient time to make use of research results.

References

- [1] Kelleci, M., Gölbaşı, Z., Yılmaz, M., Doğan, S. (2008). Bir üniversite hastanesinde çalışan hemşirelerin araştırma yapma ve araştırma sonuçlarının bakımda kullanma ile ilgili görüşlerinin incelenmesi. *Hemşirelikte Araştırma Geliştirme Dergisi*. 2(3):16.
- [2] Öztürk, A., Kaya, N., Ayık, S., Uygur, E., & Cengiz, A. (2010). Hemşirelik uygulamalarında araştırma sonuçlarının kullanımındaki engeller. *İ.Ü.F.N. Hem. Derg.* 8(3):144-155, ISSN 1304-4869.
- [3] Herdman, E.A., & Korkmaz, Ö. (2010). The importance of nursing research. *Hemşirelikte Eğitim ve Araştırma Dergisi*. 7 (1):3-4.
- [4] Glacken, M., & Chaney, D. (2004). Perceived barriers and facilitators to implementing research finding in the Irish practice setting. *Journal Of Clinical Nursing*. 13: 731-740.
- [5] Retsas, A. (2000). Barriers to nursing research evidence in nursing practice. *Journal of Advanced Nursing*. 3(3):599-606.
- [6] Johnson, M., & Griffiths, R. (2001). Developing evidence-based clinicians. *International Journal of Nursing Practice*. (7):109-118.
- [7] Demir, Y., Ak, B., Bilgin Ç., N., Efe, H., Albayrak, E., Çelikpençe, Z., & Güneri, N. (2012). Hemşirelik uygulamalarında araştırma sonuçlarının kullanımındaki engeller ve kolaylaştırıcı faktörler. *Çağdaş Tıp Dergisi*, 2(2):94-101.
- [8] Estabrooks, C.A. (2003). Translating research into practise: implications for organizations and administrators. *Clinical Journal of Nursing Research*. 35 (3): 53-68.
- [9] Estabrooks, C.A.; Floyd, J.A.; Scott-Findlay S, O'leary K.A.; Gushta, M. (2003). Individual determinants of research utilization: a systematic review. *Journal of Advanced Nursing*. 43(5): 506-520.
- [10] Goodfellow, L.M. (2004). Can a journal club bridge the gap between research and practice. *Nurse Educator*. 29(3):107-110.
- [11] Bayık, A. (2002). Hemşirelik disiplini ve araştırma. *Hemşirelikte Araştırma, İlke, Süreç ve Yöntemleri*. Erefe İ. (Ed), Ankara, 13-30.
- [12] Kocaman, G. (2002). Hemşirelik araştırmalarının değerlendirmesi ve kullanımı. Erefe İ. (Ed), *Hemşirelikte Araştırma, İlke, Süreç ve Yöntemleri*. Ankara, 280-287.
- [13] Yava, A., Tosun, N., Çiçek, H., Yavan, T., Terakye, G., Hatipoğlu, S. (2007). Hemşirelerin araştırma sonuçlarını kullanımında engeller ölçeğinin geçerlilik ve güvenilirliği. *Gulhane Tıp Dergisi*, (49):72-80.
- [14] Milner M, Estabrooks CA, Myrick, F. (2006). Research utilization and clinical nurse educators: a systematic review. *Journal of Evaluation in Clinical Practice* 12(6):639-655.
- [15] Parahoo, K. (2000). Barriers to and facilitators of research utilization among nurses in Northern Ireland. *Journal of Advanced Nursing*. 31(1): 89-98.
- [16] McCleary, L., Brown, G.T. (2003). Association between nurses' education about research and their research use. *Nurse Education Today*, (23): 556-565.
- [17] Veeramah, V. (2004). Utilization of research findings by graduate nurses and midwives. *Journal of Advanced Nursing*. 47 (2): 183-191.
- [18] Omer, T. (2012). Research utilization in a multicultural nursing setting in Saudi Arabia: barriers and facilitators. *Journal of Nursing Research*. 20 (1):66-73.
- [19] Tan, M., Şahin, Z., Özdemir, F. (2012). Barriers of research utilization from the perspective of nurses in Eastern Turkey. *Nursing Outlook*. 60(1):44-50.
- [20] Oh, E.G. (2008). Research activities and perceptions of barriers to research utilization among critical care nurses in Korea. *Intensive and Critical Care Nursing* (24) : 314-322.
- [21] <http://www.turkhemsirelerdernegi.org.tr/menu/yasa-ve-yonetmelik/hemsirelik-yonetmeligi-2010-2011.aspx>
- [22] Yava, A., Çiçek, H., Tosun, N., Yanmış, N., Koyuncu, A., Güler, A., Akbayrak, N. (2008). Kardiyoloji ve kalp damar cerrahisi hemşirelerinin araştırma sonuçlarını kullanmalarını etkileyen faktörler. *Anatol J Clin Investig*. 2(4):160-166.
- [23] Delice, S. (2006). Hemşirelik mesleği ve toplumsal cinsiyet rollerinin mesleğe etkilerinin betimlenmesi. Yüksek lisans tezi. 55.
- [24] Başar, A., Delice, S., İlhan, M., Ergün, M., Soncul, H. (2008). Hemşirelik hizmetlerinde bilgisayar kullanımı. Gazi üniversitesi tıp fakültesi hastanesi örneği. *Bilişim Teknolojileri Dergisi*, 1 (1): 43-46.

- [25] Kang, Hyunwook.(2015).Geratric hospital nurse' perceived barriers to research utilization and empowerment. *Asian Nursing Research*.9(1):65-72.
- [26] Yoder, Linda H., Kirkley, Debra, McFall, D., Curk; et al.(2014).Staff nurses use of research to facilitate evidence-based practice. *American Journal Of Nursing*.114 (9): 26- 37 .
- [27] Shaffer, Susan T., Zamowsky, Colleen D., Green, Renee C., et al.(2013).Strategies from bedside nurse perspectives in conducting evidence-based practice Project to improve care. *Nursing Clinics Of North America*.48 (2) : 353-361.
- [28] Chen, Su-Hui., Shao, Jung-Hua., Hsiao, Ya-Chu., et al.(2013).Barriers to research utilization by registered nurses in Taiwan. *Research In Nursing & Health*.36(2): 191-202.