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IMPLICATIONS OF TELENURSING PRACTICES ON NURSING CARE: TURKEY PROFILE

Abstract:

This systematic review evaluates the telenursing interventions and their efficiency in patient care. This study was conducted using scientific search engines such as Ulakbim Medical Data Base, Turkish Medline Data Base, National Thesis Center, Turkish Citation Index, Academic Index. As determined, keywords were searched in several combinations. A total of five articles that met the inclusion criteria were involved in the evaluation. This systematic review shows that the studies on this issue are very limited in terms of quantitative perspective but the results are positive. In this context, it is suggested that the number of randomized controlled studies which are evaluating the effectiveness of the care with tele nursing practices are increased and similar studies are planned with various patient groups.

Keywords:

Telenursing, care, nursing, Turkey

JEL Classification: I10

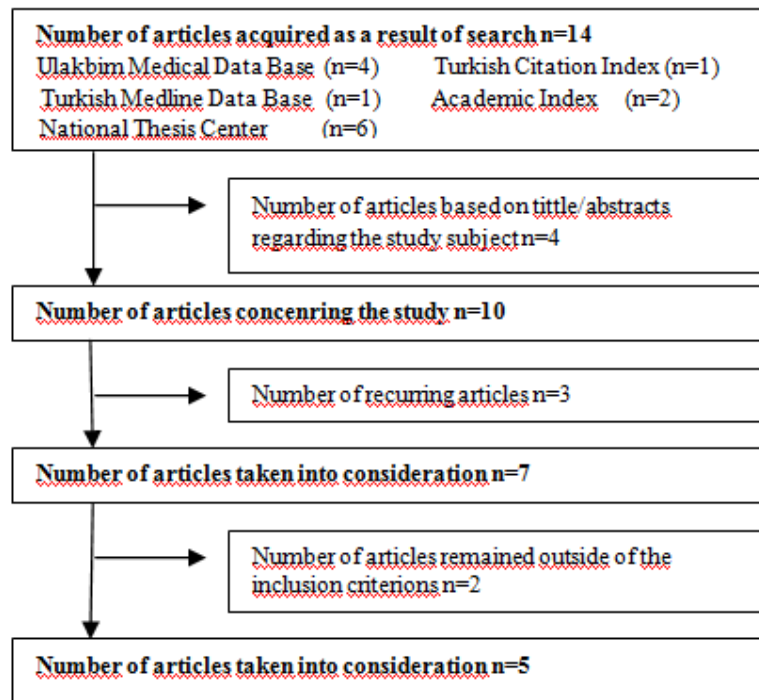
Introduction

The increased use of technology in health services procurement has influenced nurses as well. In cases involving long distances and complex health problems, it has become necessary for nurses to use telehealth technologies and integrate these applications to their nursing care practices in order to ensure the continuity of health care (Nagel Pomerleau, Penner, 2013). Thus, these applications improve the access to care, ensure the necessary support is provided to individuals with various health conditions, reduce the cost of health services and increase the self-efficacy of individuals with chronic diseases (Polisena *et al.*, 2009).

In the light of this information, this study aims to identify telenursing interventions used in health care in Turkey and their effects. For this purpose, the research question was determined to be “What are the telenursing interventions used in health care and what sort of effects do they have?”.

Methods

This systematic review was conducted based on the “*Centre for Reviews and Dissemination 2006*” Guide developed by the National Health Research Institute of York University (Dixon-Woods *et al.*, 2006). The present study was conducted through searches using Ulakbim Medical Data Base, Turkish Medline Data Base, National Thesis Center, Turkish Citation Index, Academic Index . As determined, keywords were searched in several combinations (Tele hemşirelik, Tele izlem, Tele izlem VE Hemşirelik, Tele takip, Tele takip VE Hemşirelik), and the final search was conducted on September 2015. In order to reach a high level of proof, randomized controlled studies (RCS) (Harbour, Miller, 2001) and full-text articles in Turkish and English languages were included. A total of 14 studies were obtained and 5 studies were taken into consideration within the scope of the systematic review (Figure 1).

Figure 1. Selection process for systematic compilation study

Results

The present study reviews five research articles. All of the studies were RCS. Interventions whose effectiveness was evaluated in studies were conducted by nurses. The findings acquired by means of these studies were presented under titles of “*sampling, intervention and effect of the tele-nursing practices*” (Table 1)

Sampling; Tele-health technology is a practice that has been an extensively used in treatment of chronic diseases (Kasckow *et al.*, 2014). Samples of all studies included in this review consist of individuals with chronic diseases (patient with chronic heart failure, diabetic mellitus, schizophrenia, intracoronary stents, type 1 diabetes mellitus) The participants were divided into two groups, the intervention group (IG) and the control group (CG).

Intervention; Tele health service is implemented through telephone, video-conference, internet (Hailey *et al.*, 2008), radio (ICN, 2014) and home-type tele-health tools (Hailey *et al.*, 2008). All studies included in this review utilized a telephone. In addition, two studies also made use of the video conference method. Follow-up time varied from one month to three or six months. The common purpose of all studies was to demonstrate the effects of telenursing activities on health care.

Effect of the tele-nursing practices; Telenursing practice increases access to health services, decreases costs, offers developed education opportunities, develops quality of care, enhances life quality, and provides social support opportunity (Hailey *et al.*, 2008). Results of studies included in this review support the benefits of telenursing practices as well (improvement in self care, high satisfaction, developments on life qualities, therapy satisfaction and patient satisfaction, increases in adherence to treatment, decreases in family burden, emotional expression and depression for caregivers)

Table 1. Characteristics of the researches taken into consideration

Article	Sampling	Intervention	Effect of tele-nursing practices
Sağıt B (2010)	Patients with chronic heart failure (n=40)	Via telephone and video conference were conducted with IG	There was the significant improvement in self care of the IG and patients of this group showed high satisfaction with video conferencing. There was no differences quality of life between the IG and CG
Güngör NT (2011)	Patients with diabetic mellitus (n=48)	Videophone technology were conducted with IG	There has been statistically meaningful developments on life qualities, therapy satisfaction and patient satisfaction of diabetic individuals by using videophone technology in which nursing and case management model was applied. Its determined that, there is a meaningful level decrease in HbA1c and blood sugar values.
Özkan B¹ (2012)	Patients with schizophrenia (n=62)	Via telephone were conducted with IG	It induced increases in adherence to treatment and social functioning for the patients; induced decreases in family burden, emotional expression and depression for their caregivers and was a support for the family in the patient care.
Yıldız T (2013)	Patient with intracoronary stents (n=120)	Via telephone were conducted with IG	It was established that consultancy with telenursing service and monitoring in the individuals were effective for management of complications, reduced the repeated hospital admission and the level of satisfaction of telenursing services was high.
Bağdemir ET (2014)	Patients with type 1 diabetes mellitus (n=60)	Tele-Monitoring were conducted with IG	With Tele-Monitoring program HbA1c was reduced while no change in HbA1c was observed in the CG. It has not reached to statistically significant level, average daily insulin dose increased numerically in the CG but it reduced in the IG

Discussion

International Council of Nurses (2015) states that telenursing is not a new concept and nurses in certain places, Western countries in particular, have been giving information and advice related to health on the phone for years. In addition, the Council states that this practice improves health, prevents diseases and improves nursing diagnosis, care and education. Despite of this information, one of the attention-grabbing findings of this systematic review is the limited number of studies in Turkey on telenursing interventions. Erdemir and Akman (2009) suggested that the reason for limited application of tele-nursing practices in Turkey was due to the, “uncertainties regarding occupational education and health policies; limitations in training and practice in terms of technology usage; insufficiency of institutions and society in terms of technologic competency; and obstacles before nurses regarding their occupational autonomy”. It has also been found that telenursing interventions were limited to telephone practices, but these interventions improved individuals in a positive way. In this regard, it is recommended that the number of RCSs in which the effectiveness of telenursing practices is investigated is increased and similar studies, in which different methods other than phone practices are investigated, are planned.

References

- NAGEL, D.A., POMERLEAU, S.G.; PENNER, J.L. (2013) Knowing, caring, and telehealth technology: "going the distance" in nursing practice, *J Holist Nurs*, 31: 104-112
- POLISENA, J., TRAN, K., CIMON, K., ET AL (2009) Home telehealth for diabetes management: A systematic review and meta-analysis. *Diabetes Obes Metab*, 11: 913-930
- DIXON-WOODS, M., BONAS, A., BOOTH, A., ET AL (2006) How can systematic reviews incorporate qualitative research? A critical perspective. *Qual Res*, 6: 27-44
- HABOUR, R., MILLER, J. (2001) A new system for grading recommendations in evidence based guidelines. *BMJ*, 323(7308): 334–336
- KASCKOW, J., FELMET, K., APPELT, C., ET AL (2014) Telepsychiatry in the assessment and treatment of schizophrenia, *Clin Schizophr Relat Psychoses*, 8:21-27A
- HAILEY, D., ROINE, R., OHINMAA, A., (2008) The effectiveness of telemental health applications: a review, *Can J Psychiatry*, 53:769-778
- INTERNATIONAL COUNCIL OF NURSES – ICN (2014). Telenursing. Accessed: 2 September 2015 http://www.icn.ch/images/stories/documents/publications/fact_sheets/18b_FS-Telenursing.pdf
- HALEY, C., O'CALLAGHAN, E., HILL, S., ET AL (2011) Telepsychiatry and carer education for schizophrenia, *Eur Psychiatry*, 26: 302–304
- SAGIT, B., (2010) The Investigation of the effectiveness of telemonitoring for patients with chronic heart failure, Master Thesis
- GÜNGÖR, N.T. (2011) Using videophone technology in nursing case management model on glycemic control of diabetic patients, PhD Thesis
- ÖZKAN, B. (2012) The effects of psychoeducation and telepsychiatric follow-up supplied to the patients with schizophrenia and their families on patient functioning and adherence drug and family burden, depression and emotional expression, PhD Thesis

- YILDIZ, T. (2013) The effect of giving education, consultancy with telenursing service and monitoring on procedure-related complication management in the individuals undergone percutaneous transluminal coronary angioplasty and intra coronary stents, Master Thesis
- BAĞDEMİR, E.T.(2014) Comparison of metabolic control parameters in patients with type 1 diabetes who were followed at regular outpatient conditions with those who were managed with remote tele-monitoring additional to outpatient conditions, PhD Thesis
- ERDEMİR, F., AKMAN, A. (2009) Tele-Hemşirelik. TURKMIA'09 Proceedings, VI. Ulusal Tıp Bilişimi Kongresi Bildirileri, 2009. Accessed: 2 September 2015
<http://www.turkmia.org/stc2009/cd/pdf-format/Erdemir.pdf>