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## **WEB-BASED EDUCATION PRACTICES IN EDUCATION OF NURSING STUDENTS: TURKEY PROFILE**

### **Abstract:**

This systematic review assesses Web Based Education (WBE) applications that will be used in the education of the nursing students in Turkey, and the effects of these applications on nursing education. This study was conducted using scientific search engines such as Ulakbim Medical Data Base, Turkish Medline Data Base, National Thesis Center, Turkish Citation Index, Turkish Psychiatry Index, Academic Index. As determined, keywords were searched in several combinations. A total of two theses 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 similar studies, in which WBE is planned in a way that it improves different knowledge and skills in nursing education, are conducted.

### **Keywords:**

Web based education, nursing, undergraduate education, Turkey

**JEL Classification:** I00

## Introduction

Web based education (WBE), offers many opportunities helping to develop professionally to undergraduate and graduate nurses (Montgomery, Fitzpatrick, 2002). The most important advantage of WBE is that the students can receive education wherever and whenever they want (Montgomery, Fitzpatrick, 2002, Hedger, 2008). A study in which nursing students are involved shows that there is no difference between traditional method and WBE in terms of learning duration. However, WBE improves motivation (Andersan, Avey, 2008), makes the education more entertaining (Farrell, Cubit, Bobrowski, Salmon, 2007), more interesting and more effective (Sitsman, Leners, 2006). It also provides flexibility of studying alone, improves the abilities to criticize and empathize with people (Farrell, Cubit, Bobrowski, Salmon, 2007), and increases the success (Kearns, Shoaf, Summey, 2004, Anderson, Mercer, 2004).

In the light of this information, the aim of this study is to determine the WBE applications that will be used in the education of the nursing students in Turkey, and the effects of these applications on nursing education. In accordance with this purpose, the research question is created as "What are the web based education applications that are used in the education of nursing students in Turkey, and the effects of these applications on the nursing education?"

## 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, Bonas, Booth 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, Turkish Psychiatric Index, Academic Index. As determined, keywords were searched in several combinations (web tabanlı eğitim, web destekli eğitim, uzaktan eğitim, e-öğrenme, web tabanlı eğitim VE Hemşirelik, web destekli eğitim VE Hemşirelik, uzaktan eğitim VE Hemşirelik, e-öğrenme VE Hemşirelik), and the final search was conducted on September 2015. Experimental and quasi-experimental studies, written in Turkish and English, whose samples are created with nursing undergraduates are included in the research.

Initially, searches were carried out using the databases and the relevant titles /abstracts were taken into consideration (n=52). Recurring studies were identified and deleted (n=26). According to the research, the ones conforming to the aim of the present study were determined (n=24). After obtaining full texts of the potential studies, the ones conforming to inclusion criteria were selected (n=2).

## Results

The present study reviews two research articles. WBE whose effectiveness was evaluated in studies were conducted by nursing educators. The findings acquired by

means of these studies were presented under titles of “*sampling, education methods, effect of web based education*” (Table 1).

### 1. Sampling

Web-based education is considered a promising approach to replace or supplement conventional nursing instruction (Du, Liu, Liu, Yin, Xu, Zhang, Wang, 2013). Samples of all of the studies analyzed in this compilation are composed of nursing undergraduates. Participants are divided into two groups, experimental group (IG) and control group (CG).

### 2. Education Methods

WBE is a teaching strategy the web is used to provide the materials and interactions between the students and teachers (Du, Liu, Liu, Yin, Xu, Zhang, Wang, 2013). WBE can be popularised for the theoretical part of the nursing education (Ulusoy, Uslu, Yıldırım, 2015). In all of the studies analysed in this compilation, web based education method is used. Common aim of all the studies is revealing the effect of web based education on knowledge and skills on the related subject of nursing students.

### 3. Effect of web based education

WBE, provides flexibility for students in time, place, and access to teaching content (Öztürk, Dinç, 2014). By this means, it provides education for nurses without the problems they encounter while trying to reach their education programmes (Johnson, 2005). In generally, participants accepted WBE with high satisfaction rates (Du, Liu, Liu, Yin, Xu, Zhang, Wang, 2013). The results of the studies analysed in this compilation supports the benefits of the web based education.

**Table 1.** Characteristics of the researches taken into consideration

Article	Sampling	Education Methods	Effect of web based education
Akdemir A (2011)	Undergraduate nursing students at first year (n=60)	Demonstration and online video methods were conducted with IG	There was is a statistically significant meaningful difference among mean of skill points related to IV catheter, IM injection, IV Catheter insertion, giving IV fluids between CG and IG after education. In addition, 96.7% of the IG were quite satisfied with the process.
Öztürk D (2013)	Undergraduate nursing students at second year (n=111)	Web based education before and after standard education (instruction, question answer, discussion, demonstration methods) were conducted with IG	There was no difference between the IG and CG in knowledge scores; however, IG had higher scores for urinary catheterization skills. The highest scores in knowledge and skills were obtained IG as a supplement to CG.

## Discussion

In today's world, continuous development and change of the health care technology, personnel's obligation to conformance to the new technologies, and the tendency to give service based on technology makes it mandatory for web based education and applications to exist (Uslu, Buldukoğlu, Zayim 2015). It has been reported that when WBE is used in nursing education, it improves the nursing knowledge and skills (Du, Liu, Liu, Yin, Xu, Zhang, Wang, 2013), lifelong learning skills, to provide trustworthy evidence based care (Du, Liu, Liu, Yin, Xu, Zhang, Wang, 2013, Button, Harrington, Belan, 2014) of the nursing students. It has also been reported that participants feel very pleased due to the application (Du, Liu, Liu, Yin, Xu, Zhang, Wang, 2013, Chan, Chair, Sit, Wong, Lee, Fung, 2015). These results support the findings of our study.

It requires time for existing education methods and teaching strategies to be adapted to e-learning (Button, Harrington, Belan, 2014). Although usage of WBE for nursing education is new and limited for Turkey, online learning instead of in-class education has been used in the world for last ten years (Boz, Kurubacak, 2012). As the reflection of this, WBE has not been popularized enough, has been remained limited to an application developed for a bachelor's degree completion program and two graduate thesis studies within the scope of formal education in our country.

In this scope, realizing that the number of studies in which WBE activity is analyzed is inadequate in Turkey, it is suggested that similar studies, in which WBE is planned in a way that it improves different knowledge and skills in nursing education, are conducted.

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