RELATIONSHIP BETWEEN NURSING STUDENTS’ VIEWS ABOUT WEB-BASED PATIENT EDUCATION COURSE AND ANXIETY IN TURKEY

Gülsün TASOCAK, Prof.Dr., PhD, BSN
Hülya KAYA, Associate Prof., PhD, BSN*
Emine SENYUVA, Assistant Prof., PhD, BSN*
Burçin ISIK, Assistant Prof., PhD, BSN**
Gönül BODUR, Research Assistant, PhD Student, BSN*

*Istanbul University
Florence Nightingale Nursing Faculty
Nursing Education Department
Şişli, Istanbul, TURKEY
** Zirve University
Faculty of Health Sciences Nursing Department,
Gaziantep, TURKEY

ABSTRACT

The study was designed as descriptive and cross-sectional to determine the relation between students’ views about web-based Patient Education course and anxiety. The study group consisted of all students registered the web-based Patient Education course (N: 148) at 2010–2011 semester at a nursing school. Data were collected using "Information Form", "Patient Education Course Assessment Form" and "State-Continuous Anxiety Scale."

Most of students are female and average age were 20.30 ± 1.24. Most of students had not participated in any course/program given by distance education. Before the course the students state anxiety is light level, however after education the students state anxiety is moderate level. It was found that the students had positive views about the "Course Design" and the "Gains of Course", but they were hesitative about the method of the course. Findings were thought to be due to the fact that the students’ experiences distance education course for first time. As a result students had positive views about web-based patient education course, there is relation between state anxiety before course and views about course.

The findings suggested that the students had positive views about the web-based education, but they were anxious as they had a new experience, and the distance education could be used particularly in theoretical courses in nursing education, but the necessary changes needed to be made on the basis of the results of the longitudinal assessments.

Keywords: Web-based education, distance Education, patient education, nursing education, nursing student.
INTRODUCTION

The alterations and developments observed in the field of technology and communication at the end of twentieth century, increase the information rapidly led the present period to be called with names such as information age, computer age, and communication age. In this period of alteration, information was commenced to be considered as power, in this context, the information technologies enabling collection, protection and transmission of information basically affected every community to a certain degree depending on the structure of the communities.

These alterations and developments obliged the communities to follow new technologies and adapt to themselves (Akkoyunlu, 1999; Aslantürk, 2002; Şenyuva & Taşocak, 2010).

Rapid alteration and developments in the field of technology and communication also affected the education and some essential changes were to be made in education systems. Especially problems such as rapid increase of number of students, inequality of opportunity in education led to requirement of distance learning (Yiğit & Özden, 1999; Özaygen, 2000; Kaya, 2002; Türkoğlu, 2003; Şenyuva & Taşocak, 2010; Hadjerrouit, 2010). Particularly, the increase in number of students and schools opened with inadequate infrastructure for nursing education in Turkey and shortness of faculty member make it inevitable to benefit from distance learning (Kaya & Akçin, 2005; Ülker et all., 2001).

BACKGROUND

Distance learning is defined as an educational approach in which students and educators are present in different places in a part or whole of education, independence from time is ensured, student participates in education efficiently and willingly, telecommunication tools and multimedia applications are used. (Blakeley & Smith, 1998; Ertuğrul, 1999; Diekelman & Schulte, 2000; Özaygen, 2000; Picciano, 2001; Taylor, 2003).

Generally conducted based on printed materials and television in the past, distance training was commenced to be given based on internet and web as a result of use of computer networks in education since the end of 1990s (Willis, 1994, 2002; Blakeley & Smith, 1998; Schrum, 1999; Aydın, 2002; Emre, 2002; Pahl, 2003; Harrison, 2006; İşleyen, Bozkurt & Zayım, 2008; Şenyuva & Tasocak, 2010). Khan (1997) defines web-based learning as “an interactive teaching programme using web sources and qualifications in order to create an educational environment increasing and supporting learning”, Relan and Gillani (1997) defines as “cognitive training strategies, applications using qualifications and sources of World Wide Web (www) through learning environments based on a constructive collaboration”.

Generally defining, web-based learning is an education model in which education is carried out independent from time and place, learning is realized according to learning speed, computer is used for the purpose of study and communication, course contents, sources, assignment and projects are presented in web environment, prose, graphic, image and sound is transmitted over internet, connections are prepared to get access about documents of courses, e-mail lists of students are used as means of education and
presentation and which can be easily accessed, support flexible storage and displaying options and be easily updated (Yiğit & Özden, 1999; Somuncu, 2000; Aslantürk, 2002; Heidari & Galvin, 2002; Kuzu, 2002; Avery et al., 2003; Carr & Farley, 2003; Pahl, 2003; Türkoğlu, 2003; Hawatson, 2004; Glen, 2005; Harrison, 2006; Nam & Jackson, 2007; Hadjerrouit, 2010; Şenyuva & Taşocak, 2010). In web-based learning, although student and educator are physically separate from each other, they may communicate through synchronous or asynchronous multimedia technology via internet services such as interactive web pages, e-mail, file transfer, discussion and news groups, chat rooms (Ergün, 1998; Özen & Karaman, 2001; Atack & Rankin, 2002; Yazon, Mayer-Smith & Redfield, 2002; Hawatson, 2004; Al & Mardan, 2005; Harrison, 2006; İşleyen, Bozkurt & Zayım, 2008; Şenyuva & Taşocak, 2010).

Being one of the most important and common tools of internet which can be used for education, World Wide Web allows the information to be provided over networks (internet, intranet), gives multidimensionality to education by enriching educational environments in both visual and audial terms, contributes to personalization of education by offering opportunities in realization of synchronous and asynchronous learning, enable students to communicate with others easily, learn themselves, undertake responsibility and manage their times (Willis, 1994; Emre, 2002; İpekçi 2003; Özdemir & Yalın, 2007; Hadjerrouit, 2010; Şenyuva & Taşocak, 2010). As put by Wyld (1997) “internet and web technologies both ensure communication among people and enable reaching numerous information, offers different forms of learning, supports student-centered learning environment and gives real life experiences” (Wyld, 1997, Cited: Türkoğlu, 2003).

Web is an appropriate tool that can be selected in distance learning with features such as effective communication, independence from time and place, providing a rich learning environment, practicability, equality of opportunity, developing and storing course, online support, personalization of education as compared to limitations such as technical infrastructure, process of orientation, funding. However, in order to make intended level of use from web-based learning, the anxiety - also defined as sadness, concern - it may cause on the student should be taken into account.

In the relevant literature, it is pointed out that there is a relation between web-based learning applications and student’s anxiety of computer, the anxiety will raise in the students who have cyber phobia or who are not liable to use computer, and thus intended level of learning will not be achieved (İşleyen, Bozkurt & Zayım, 2008; Şenyuva & Taşocak, 2010). These remarks offer that it is required to determine the relation between students' views concerning web-based Patient Education course and anxiety. Because of in our country there is any practice about web-based learning in nursing education so this study is in important due to light related practice.

**AIM AND RESEARCH QUESTIONS**

Aim of the study is determine the relation between students’ views about web-based Patient Education course and anxiety.
Following questions were asked in line with this objective:

- What are students’ views about web-based Patient Education course?
- How is the students’ anxiety before and after web-based Patient Education course?
- Is there a relation between students’ views about web-based Patient Education course and anxiety?

**METHODS**

**Sample and Data Collection**

Study was carried out as definitive and cross-sectional. Study group comprised of all the students who received web-based Patient Education course in fall semester of 2010-2011 academic year in a school of nursing and who accepted to participate in the study (N:148). 6 forms were not taken for consideration due to missing information. Study was carried out with 142 students. 97.3% of study group was accessed in the study.

**Instrument**

Data were collected with "Information Form", "Course Evaluation Form" and "State Trait Anxiety Scale". The data concerning State Trait Anxiety were collected at the beginning and the end of the academic year; views about the course were collected at the end of the academic year.

**Information Form**

Used to determine age, gender, graduated secondary education institution, willingness to select nursing profession, having their own computer, state of using computer-internet, primary objectives of using computer and their views concerning distance learning.

**Course Evaluation Form**

Used to determine students’ views about web-based Patient Education course (Passerini & Granger, 2000; Atack & Rankin 2002; Christianson, Tiene, & Luft, 2002; Demirli, 2002; Khalifa & Lam, 2002; Avery et al., 2003; Carr & Farley, 2003; Hawatson, 2004; Wilkinson et al., 2004; Bonnel, Wambach & Connors, 2005; Kuzu, 2005; Halter, Kleiner, & Hess, 2006; Harrison, 2006; Yu & Yang, 2006; Nam & Jackson, 2007; Hadjerrouit, 2010). Comprising of three sections and 39 statements, the first section of Course Evaluation Form contains 18 statements with respect to students’ views concerning design of Patient Education course; second section includes 15 statements with respect to students’ views about method of Patient Education course, third section involves 6 statements with respect to students’ views about their acquisitions at the end of the course.

Answers were listed as I agree (3 points), I am hestand (2 points) and I don’t agree (1 point) in this form which was prepared in 3 point likert scale.

In this study, Cronbach’s Alpha value is for total of Course Evaluation Form is .96, for Course Design dimension is .95, for Course Management dimension is .89, for Course Acquisitions dimension is .94.

**State Trait Anxiety Scale**

This scale was used to identify whether web-based Patient Education course cause anxiety in students.
It was developed by Spielberger et al. (1970) and adapted into Turkish by Öner and LeCompte (1985). Likert type is a self-assessment scale comprising of 40 items and short statements intended to measure the anxiety, 20 of which target state, 20 of which target trait anger. State Anxiety Scale requires the individual to describe how he feels at a particular time and under particular circumstance considering his feelings about the involved situation. Trait Anxiety Scale, on the other hand, requires how individual feels in general. The feelings and behaviors expressed in items of State Anxiety Scale are answered by selecting one of the following options according to severity: (1) never, (2) slightly, (3) too much and (4) completely. The feelings and behaviors expressed in Trait Anxiety Scale are answered by selecting one of the following options according to frequency (1) almost never, (2) sometimes, (3) usually and (4) often. There are 10 adverse statements in State Anxiety Scale (Items 1, 2, 5, 8, 10, 11, 15, 16, 19 and 20) and there are 7 adverse statements in Trait Anger Scale (Items 21, 26, 27, 30, 33, 36 and 39). Total of points obtained in each scale may vary between 20 and 80. Points between 0-19 indicate there is no anxiety, points between 20-39 indicate slight level of anxiety, points between 40-59 indicate medium-level anxiety, points between 60-79 indicate heavy level of anxiety; the fact that total point is 60 and over indicate that said person requires professional assistance (Aydemir & Köroğlu, 2000; Öner & LeCompte, 1998; Özgüven, 2000).

In this study, Cronbach’s Alpha value of State Anxiety Scale was found .97 for before Patient Education course and .94 for after Patient Education course. Cronbach’s Alpha value of Trait Anxiety Scale was found .96 for before patient education course and .93 for after patient education course.

**Web-Based Patient Education Course**

Patient Education course is a one-semester course delivered as 2 hours/week at 2nd grade in education programme of school of nursing. Web-based Patient Education course was developed and arranged based on Mixed Design Model, Distance Higher Education Regulations based on Interuniversity Communication and Information and related literature. This web-based Patient Education course was implemented as asynchronous (Passerini & Granger, 2000; Nam & Jackson, 2007; Özdemir & Yalın, 2007; Kay, Knaack, & Petrarca, 2009; Hadjerrouit, 2010; [http://www.yok.gov.tr/yasa/yonet/yonet60.html](http://www.yok.gov.tr/yasa/yonet/yonet60.html) retrieved on 11.06.2010). Content of the course was enriched with tables, figures, images, animations, applications embedded in the page and supported with face-to-face interviews (Figure: 1, 2).
Also, reading text, “Now Your Turn” exercises (Figure 3) were placed among web pages so that students think about the texts they have read or will read, comment on them, learn actively and raise their motivation, evaluation questions were also placed at beginning, middle and end of the units so as to ensure that they evaluate the information they obtained and recognize misunderstood or missing subjects, evaluate themselves (Figure 4,5).

Figure 3
Now Your Turn? Exercises

Figure: 4
Evaluation Questions

Figure: 5
Evaluation Questions

Ethical Considerations
The data were collected on the basis of voluntary participation in 2010-2011 fall semester after obtaining the written consent of Directorate of School of Nursing. Oral information was given to the participants before beginning to collect data, they were requested to fill in the forms after making the required explanations.

Data Analysis
SPSS 16.0 was used to analyze data. Frequency, average were used in analysis of introductory characteristics of the students, Wilcoxon, Friedman χ2, Mann Whitney U and Kruskal Walls were used in multiple comparisons, Spearman Correlation analysis was used in determination of the relation between variables. Results were evaluated in the confidence interval of 95% and significance was evaluated at p<0.05 level (Aksakoğlu, 2001; Özdamar, 2001).
RESULTS

The findings for introductory characteristics, state trait anxiety level of the students relation between views about web-based Patient Education course and state trait anxiety were presented in Table 1, 2 and 3.

81.7% of the students are female and 18.3% are male, average of age is 20.30 ± 1.24, 52.1% of students are graduated from Anatolian high school while 30.3% of them are graduated from high school. 60.6% of the students expressed they selected nursing profession voluntarily.

It was found that 59.9% of the students had their own computers, 70.0% of the students who don’t have computer used the computer laboratory of the school while 61.4% of them used internet cafes, all of the students (100.0%) used internet, 54.2% of them connected to internet from their own computer, 53.5% of them connected to internet from computer laboratory of the school. 85.2% of the students stated they used internet primarily for researching, accessing information, 71.8% for registering to courses and following course sheets, 69.7% for writing homeworks.

It was found that 92.3% of the students didn’t participate in any course/programme given by distance learning. 81.7% of the students mentioned that all the courses in basic education could not be given by web-based learning method.

Table: 1
General average of the students’ opinions about the course (N=142)

<table>
<thead>
<tr>
<th>Sub-dimensions</th>
<th>X±SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Design</td>
<td>2,58±0,52</td>
</tr>
<tr>
<td>Course Method</td>
<td>2,29±0,52</td>
</tr>
<tr>
<td>Course Acquisitions</td>
<td>2,60±0,59</td>
</tr>
<tr>
<td>Total</td>
<td>2,47±0,48</td>
</tr>
</tbody>
</table>

As seen in Table: 1, mean of student’s views about web-based Patient Education course 2,47±0,48. Mean of their views about “Course Design” is 2.58±0.52, the highest mean belongs to the item “Connection was established among the units.” (2.67±0.59), the lowest mean belongs to the item “I did my ‘Now is Your Turn’ exercises willingly” (2.39±0.75). Mean of their views concerning “Course Method” is 2.29±0.52, the highest mean belongs to the item “I benefited from used source book.” (2.48±0.80), the lowest mean belongs to the item “I didn’t enjoy at all while studying.” (1.94±0.86). Mean of their views concerning “Course Acquisitions” is 2.60±0.59, the highest mean belongs to the item “I understood the importance of handling patient education activities with a scientific approach.” (2.62±0.65), the lowest mean belongs to the item “I could perceive the connection of the course with other courses.”
63.4% of the students stated they benefited from face-to-face interviews. It was found that there was a statistically significant difference ($p=0.038 \ p<0.05$) between students' gender and mean of views concerning the course. It was found that mean of female students' views concerning the course ($2.53\pm0.45$) was statistically significant ($p<0.05$) than mean of the male students ($2.28\pm0.57$). It was found that there was a statistically significant difference between students' status of selecting nursing profession willingly and mean of their views concerning the course ($p=0.005 \ p<0.01$). It was found that mean of the views of the students who selected nursing profession willingly with respect to the course ($2.55\pm0.50$) was statistically more significant ($p<0.01$) than mean of the ones who selected unwillingly ($2.40\pm0.43$).

### Table 2

Comparison of students' anxiety points between pre-course and post-course (N=142)

<table>
<thead>
<tr>
<th>Scales</th>
<th>Pre-Course</th>
<th>Post-Course</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Anxiety</td>
<td>X±SD</td>
<td>X±SD</td>
<td>p</td>
</tr>
<tr>
<td>State Anxiety</td>
<td>35.38±13.78</td>
<td>40.48±11.98</td>
<td>0.001*</td>
</tr>
<tr>
<td>Trait Anxiety</td>
<td>38.85±12.80</td>
<td>40.54±11.27</td>
<td>0.285</td>
</tr>
</tbody>
</table>

*p<0.01; Friedman χ² test*

As seen in Table 2, it was found students had a mild level of state anxiety ($35.38\pm13.78$) and mild level of trait anxiety ($38.85\pm12.80$) before course, and medium level of state anxiety ($40.48\pm11.98$) and medium level of trait anxiety ($40.54\pm11.27$) after course. It was found that there was a statistically significant difference between state anxiety points before and after the course ($p<0.01$). A statistically significant difference was not detected between trait anxiety points before and after course ($p<0.01$). While no statistically significant difference was found between gender of the students and mean before and after course state and trait anxiety ($p>0.05$), a statistically highly significant difference was found between female students' before course ($35.54\pm13.88$) and after course state anxiety points ($41.35\pm11.26$), ($p=0.001 \ p<0.01$). A statistically significant difference ($p<0.05$) was found between before course state and trait anxiety points of the students who selected nursing profession willingly/unwillingly (State Anxiety: $33.34\pm13.60$; Trait Anxiety: $37.42\pm13.73$) and their after course points (State Anxiety: $39.33\pm11.78$; Trait Anxiety: $40.47\pm11.44$). Moreover, it was found that state anxiety level ($38.52\pm13.58$) of the students who selected nursing profession unwillingly was statistically higher than who selected nursing profession willingly ($33.34\pm13.60$). A statistically significant difference ($p=0.013 \ p<0.01$) was detected between before course ($34.50\pm14.09$) and after course ($40.31\pm9.64$) state anxiety points of the students who can think of a life without computer or internet. A statistically highly significant difference ($p=0.003 \ p<0.01$) was detected between before course ($35.83\pm13.68$) and after course ($40.56\pm13.06$) state anxiety points of the students who can’t think of a life without computer or internet. No statistically significant difference ($p>0.05$) was found between before and after course trait anxiety points of the students who can and can’t think of a life without computer or internet. A statistically significant difference ($p<0.01$) was detected between before course ($35.44\pm13.58$) and after course ($40.67\pm12.09$) state anxiety points of the students who responded “no” to the question “Have you participated in a course/programme given by distance learning beforehand?”.
A statistically significant difference (p<0.01) was detected between before course (36.62±12.61) and after course (41.18±12.07) state anxiety points of the students who responded "no" to the question "May all the courses in nursing education be given by web-based distance learning method?".

<table>
<thead>
<tr>
<th>Anxiety</th>
<th>Views about Patient Education</th>
<th>Pre-course State anxiety</th>
<th>r</th>
<th>p</th>
<th>Post-course State anxiety</th>
<th>r</th>
<th>p</th>
<th>Pre-course Trait anxiety</th>
<th>r</th>
<th>p</th>
<th>Post-course Trait anxiety</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-course State anxiety</td>
<td>r = - 0.165; p = 0.049*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-course State anxiety</td>
<td>r = - 0.012; p = 0.891</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-course Trait anxiety</td>
<td>r = - 0.035; p = 0.684</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-course Trait anxiety</td>
<td>r = - 0.046; p = 0.595</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When Table 3 was examined, a negative poorly significant relation was detected between student’s views about web-based Patient Education course and before course state anxiety in statistical terms (r =-0.165; p<0.05). No statistically significant relation was found between after course (r = 0.012 p = 0.891) state anxiety and before course (r =- 0.035 p = 0.684), after course (r = - 0.046 p = 0.595) after course anxiety points.

**DISCUSSION**

Most of the students forming the study group are female, all of whom use internet and have their own computer (59.9%) and use mostly computer laboratory of the school and internet cafes to connect to the internet.

Most of the students (85.2%) expressed they used internet primarily to research and access to information. In their studies, Şenyuva & Taşocak (2010), Adams & Timmis (2006), Koç (2006), İşman, Dabaj & Gümüş (2006), Aslim (2004), Aksu & İrgil (2003) point out that use of computer and internet in web-based learning are basic skills. It was considered that it is a positive consequence for web-based learning that majority of the students use internet and it is an adverse consequence that they have limited access to internet connection in terms of following web-based course in an active manner.

Most of the students (92.3%) stated that they didn’t participate in a course/programme given by distance learning and not all of the courses in basic nursing education could be given by web-based learning. In her study, Şenyuva & Taşocak (2010) underlined that nursing students stated all courses could not be given by distance learning method only theoretical courses could be given by distance learning. This consequence indicates students are of the opinion that theoretical courses could be given effectively and efficiently by web-based learning. In her study, Şenyuva & Taşocak (2010) specify that students have positive opinions concerning the course given by web-based learning.
In their research, Halter, Kleiner & Hess (2006) mention that web-based learning increased students’ eagerness to learn by allowing the students to take responsibility in their own learning, to study in accordance with their own speed of learning, to easily browse in internet sources regarding the subject and to set their own time of study. In their research, Wilkinson, Forbes & Bloomfield (2004) found students stated that web-based learning gave them the opportunity to study personally and flexibly, proceed in accordance with their speed, use time efficiently, effectively and economically, access easily to information, give rapid feedback and use of this method in their courses raised their success, interest and motivation. In their research Christianson, Tiene & Luft (2002) detected students expressed that use of materials to increase the interaction between student-student, student-trainer in web-based learning environments, availability of case studies, evaluation questions increased their experience web-based learning and had more positive impacts on developing an attitude.

In his research, Demirli (2002) stated students denoted lack of time and place limitation contributed to increasing their performance, boredom caused by passive course listening in traditional class environment was not present, adverse incidents to arise between educator-student, student-student, was avoided, the questions hesitated to be asked in traditional class environment were asked more comfortably in virtual platform, audial and visual designs were required to be improved for the applications to be successful, however they thought web-based trainings which are often conducted asynchronously could be inadequate in providing answer to instant questions and problems. In the study, it was determined students had positive opinions concerning overall, course design and acquisitions of web-based Patient education course prepared, they were hesitant about course method. Their hesitations concerning course method were attributed to the fact that students experienced/participated in a course given by distance learning for the first time. Consequences of the study support the consequences of relevant studies. It was found that female students’ opinions related to the course were significantly higher than male students’ opinions. In their research, Bonnel, Wambach & Connors (2005) suggested female students stated use of technology in their education facilitated their learning, raised their creativity and self-confidences and was effective in preparing them to the future. Upon these consequences, it was construed that female students had a more positive attitude about learning by web-based learning.

It was found that opinions of the students who selected nursing profession willingly with respect to the course were statistically significant. With this finding, it was construed readiness of the students to learn, who select nursing profession willingly was higher. While no statistically significant difference was found between gender of the students and point mean of before course and after course state anxiety, a statistically highly significant difference was found between female students’ before course and after course state anxiety points. These consequences suggest gender has no impact on anxiety, however increase in female and male students’ post-course anxiety indicate they are worried about the course, the reasons need to be studied.

It was found that state anxiety point of the students expressing they selected nursing profession unwillingly before the course were statistically higher than anxiety point of the students expressing they selected nursing profession willingly. With this finding, it was construed that the students selecting nursing profession unwillingly had more anxiety in web-based learning than those selecting this profession willingly and their readiness was not sufficient.
A statistically significant difference was detected between before and after course state anxiety points of the students who think of a life without computer or internet. A statistically significant difference was detected between before course and after course state anxiety points of the students who can't think of a life without computer or internet ($p=0.003 \ p<0.01$). State anxiety of the students who can and can't think of a life without computer or internet increased subsequent to the course and increase indicates statistical significance.

This consequence might be attributed to technical failures such as activation of password in teaching the course and opening of the units later than desired date etc.

A statistically significant difference was detected between before and after course state anxiety points of the students who can't think of a life without computer or internet. Increase of after course anxiety points of the students who did not participate in a course given by distance learning beforehand was attributed to the fact that they had no prior experience with respect to this.

A statistically significant difference was detected between before and after course state anxiety points of the students who responded “no” to the question “May all the courses in nursing education be given by web-based distance learning method?”. That anxiety of the students thinking not all the courses in nursing education could be given by distance learning was construed with the fact that their readiness concerning web-based patient learning was inadequate.

A negative poorly significant relation was detected between student’s views about web-based Patient Education and before course state anxiety in statistical terms.

It was observed that as students’ views about the course increased in a positive way, their anxiety decreased. This consequence indicates that students’ preliminary preparation before the course was important in decreasing the anxiety.

**STUDY LIMITATIONS**

The study is limited with students who receive web-based Patient Education course in a School of Nursing in 2010-2011 fall semester. All nursing students can’t be generalized.

**CONCLUSION**

Consequences indicated that most of the students had positive views about web-based Patient Education course given by web-based learning, they had concerns and they were of the opinion that distance learning could be applied particularly in theoretical courses in nursing education.

In the light of these consequences, it might be recommended

- to extend use of web-based learning applications in nursing education,
- to study reasons for anxiety and carry out preliminary preparation of the students prior to the course in line with the consequences.
BIODATA and CONTACT ADDRESSES of AUTHORS

Hülya KAYA graduated Baccalaurate Program from Istanbul University Florence Nightingale School of Nursing at 1982. She graduated PHD Program from Istanbul University Health Science Institute at 1998. She was Associate Professor in 2012. She was working at Istanbul University Florence Nightingale School of Nursing Department of Nursing Education from 1992. She has clinical experience for years. Her professional interested areas are Critical Thinking and Teaching of Educators.

Hülya KAYA, Associate Professor, BSN, PhD
Istanbul University Florence Nightingale Nursing Faculty,
Nursing Education Department Sisli, 34381, Istanbul, TURKEY
Tel: +90212 4400000/27040
Email: hulyakay@istanbul.edu.tr

Emine ŞENYUVA was born in Istanbul in 1976. She completed her education at elementary, secondary and high school levels in Nisantasi, in Girls High School, Istanbul, Turkey. Emine Şenyuva completed her undergraduate study in İstanbul University Florence Nightingale High School of Nursing in 1997. She worked at Women and Child Bearing Service Vehbi Koç Foundation Private American Hospital between the years 1997-1998. She completed her post graduate titled “Nursing Activities Aimed at Patient Education in Inpatient Treatment Institutions” in 2000 and her doctoral thesis titled “Web-Based Distance Education Application in Nursing Education: A Sample of the Lesson of Patient Training” in 2007. Among the subjects regarding the nursing education, she has a special interest in distance education, web-based distance education, information and communication technologies, learning/education and information sources, philosophy of nursing, healthy/patient training, in-service education, education of trainer and research methods in nursing. She is a member of the Turkish Nurses Society, Association of İstanbul University Florence Nightingale High School of Nursing Graduates, Turkish Informatics Association, Health Informatics Association and Medical Informatics Association.

Emine SENYUVA,
Assistant Professor, BSN, PhD (Corresponding Author)
Istanbul University Florence Nightingale Nursing Faculty, Turkey
Nursing Education Department Sisli, 34381, Istanbul, TURKEY
Tel: +90212 4400000/27150
Mobile Tel: (0535) 6184488
Fax: +90212 2244990
Email: esenyuva@istanbul.edu.tr

Burçin (KISA) ISIK, currently working as assistant professor in the Nursing Department of Health Sciences Faculty in Zirve University in Gaziantep-Turkey. She graduated from Istanbul University Florence Nightingale Nursing Faculty in 2002. She received master degree in 2005 and PhD degree in 2011 from Istanbul University-Health Sciences Institution, Nursing Education Department. She developed an intravenous injection simulation software in her doctoral thesis.
Currently, she studies and gives lectures in Nursing Department and Medical Faculty and she takes charge in organizing simulation laboratory in Zirve University. Her research focus is in the area of simulation software and educational design, educational technology, health information technology, education in nursing. She is also member of association related nursing and informatics. She has several articles in Turkish and international journals.

**Burçin (KISA) ISIK, Assistant Professor, PhD, BSN.**
Zirve University Faculty of Health Sciences
Nursing Department, Gaziantep, TURKEY
Phone: 0342 211 66 66/7421
Email: burcin.isik@zirve.edu.tr

**Gönül BODUR** received her BSN (2007) and her MSN (2010) from the Istanbul University Florence Nightingale Nursing Faculty in Turkey. Her master thesis name is “Turkish Nursing Students’ Views Toward Environmental Awareness”. Now she is a PhD student in Nursing Education Department and her doctoral thesis name is “Nurses’ and Nurse Educators’ Perceptions toward Future of Nursing”. She is a research assistant at Istanbul University Florence Nightingale Nursing Faculty at Nursing Education Department from 2009. Her research focus is on nursing education, environmental health, environmental education, health care technology, future studies in health care and nursing education. She has many oral and poster presentation and some research article. She was also worked at Memorial Hospital in Turkey in intensive care unit as a nurse (2007-2009). She is also a member of the Turkish Nurses Association, Istanbul University Florence Nightingale Nursing School Alumni Association (Board Member), Nursing Education Association, Turkish Futurism Association, Health Informatics Association, Nature Association, Turkish Environment Platform, Social Sciences for Health Association, Diabetes Nurses Association.

Gönül BODUR, Research Assistant, BSN, PhD Student
Istanbul University Florence Nightingale Nursing Faculty,
Nursing Education Department Sisli, 34381, Istanbul, TURKEY
Tel: +90212 4400000/27150
Email: gnlbodur@istanbul.edu.tr

**REFERENCES**


