

## INTERACTION IN DISTANCE NURSING EDUCATION

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### ABSTRACT

The purpose of this study is to determine psychiatry nurses' attitudes toward the interactions in distance nursing education, and also scrutinize their attitudes based on demographics and computer/Internet usage. The comparative relational scanning model is the method of this study. The research data were collected through "The Scale of Attitudes of Nurses towards Distance Nursing Education", developed by the researcher. Reliability coefficients for the whole scale and the two sub-dimensions determined by varimax rotation were calculated through Cronbach  $\alpha$  Formula. The Chi-Square test was employed to test the construct validity of the scale could be determined. The research findings revealed that the scale was valid and reliable and the nurses' attitudes towards interaction in distance nursing education in the sub-dimensions were high.

**Keywords:** Interaction, distance nursing education, nurses' attitudes, distance education, psychiatry nurses.

### INTRODUCTION

Developing countries faced with many problems such as the increase of population, unplanned urbanization, the absence of reliable data, the absence of a systematic approach to the provision of health services and reduction of human resources that affect all areas of health, including mental health (Mohit 2001). Epidemiological data indicate that the increase in the number of diseases due to mental illness. Mental health problems affect incapacity to work and illness of population also indirectly deaths. In addition to this, mental health problems like depression, may lead to physical disorders (Piko 2007). In this context, protective studies are important and the the specialist nurses have critical responsibilities in health team.

### PSYCHIATRIC NURSING AND DISTANCE EDUCATION

For the expanding of knowledge base in the field of mental health, and the contemporary roles of psychiatric nurses that the each of needs specialist, the psychiatric nurses should follow and reflect researches and developments in the field of health to a safe and sufficient care to individuals(Boyd 2008; Glaister and Blair 2008). In this context, the continuity of their education is important. However, nurses have disincentive factors such as, living away educational institutions, different working hours, and family responsibilities.

Because of these, nurses do not attend formal learning environments (Moore and Hart 2004).

Distance education helps to eliminate the obstacles, as already mentioned, to the nurses who have responsibilities of adult life by providing freedom, flexibility and autonomy for accessing courses and course materials at anytime, anywhere (Willems 2005). On the other hand, desire to be competent of nurses in the changing and developing knowledge age effects on learning and teaching style.

Nursing education is used distance education environments for degree completion, undergraduate, graduate, in-service training, health education to patient or healthy individuals (Strevy 2009; Woodard Leners, Wilson and Sitzman 2007, Im, Liu, Dormire and Chee 2008, Anderson and Friedemann 2010, Lovecchio 2008, Chang, Hsiao Sheen, Chang and Lee 2008). For example, two psychiatric hospitals in Finland implemented an Internet-based patient education programs (Anttila, Välimäki, Koivunen, Luukkaala, Kaila, Pitkänen and Kontio 2011).

## **INTERACTION IN DISTANCE NURSING EDUCATION**

In this section will be examined student-student interaction and student-faculty interaction in distance learning environments.

### **Student-Student Interaction**

Johnson (2008) stated that interaction is primary importance for nurse students. They highlighted that lack of interaction leads to sense of loneliness. Fisher (2004) noted that interaction was perceived more flexible and learner-centered by students in online environments, because it provides facilities such as learning, thinking, resource gathering and participating in discussions. Beldarrain (2006) stated that interaction and collaboration can be provided asynchronous and synchronous learning networks through technology. Cooperation among students is an important component of activities. The students need to combine their forces to learn more. They need to understand and reflect social skills such as recognize, support, communication and trust, to work together on Web. Asynchronous online communication provides to students the possibility to interact anywhere, at any time to ask questions, share ideas, and freedom of inquiry (Lobry de Bruyn 2004).

In a study examining the social existence toward asynchronous online learning environments, the students stated that interaction is important for the development of social existence. Participants of this study who enrolled an online doctorate of nursing program, said that interaction provided to sense of knowing each other, be known the others and sense of connection. One participant of this study stated that when they connected with the others, they had learned better (Joyner 2009).

Russo and Campbell (2004) stated that frequency of interaction is important in online environments for the students do not feel alone themselves. One student stated that interaction to complete their homework with other students in the group increases the perception of existence in online environment. Another student stated that they could understand the other students who have same question and problems, by corresponding with the other students to do group homework through e-mail.

On the other hand, another student told that interaction within group projects is more humanistic. After the interaction with the same people, the students used elements such

as greeting, welcoming and emoticons more frequent and maybe more effective (Russo and Campbell 2004). Meyers (2010) told that whereas nurse students satisfied with online education but they did not agree on communication and interaction. Christianson, Tiene and Luft (2002) stated that interaction was not constrained in online environment, unlike it improved more in these environments.

### **Student-Faculty Interaction**

Russo and Campbell (2004) stated that student-faculty interaction is generally special, reinforced by individual e-mails with feedback and evaluation in online environments.

They added that it should be developed special activities like photos, audio components including greeted to eliminate sense of isolation (Russo and Campbell 2004).

Koeckeritz, Malkiewicz and Henderson (2002) said that in online nursing education, it should be provided student-faculty interaction, and cooperation among students. They added that nurse students should be encouraged to learn, and should be given timely feedback. Peterson (2008) highlighted timely feedback is linked to students' satisfaction with online education. In the other hand one lecturer who is online educator said that it is important giving a regular and informative feedback how students will do on classes (Donovan 2004).

Brownrigg (2005) said there is a strong relationship between student-faculty interaction and Web-based classes. Moore and Kearsley (2005) stated after presentation of content, lecturer supports students to interaction with content. Lecturer helps students to apply shown skills, and to use presented knowledge and ideas. Besides, lecturer is responsible for the designed testing and evaluation to ensure students' progress. Wegmann and McCauley (2007), suggest some strategies that will help the development of online interaction. These are:

- It should be measured in technological knowledge of students.
- Each lesson should begin with activities that require students to become acquainted.
- Office hours should be kept regular.
- Connection should be established once a week for each student through e-mail, discussion board reply and assignment response.
- It should be respond e-mail of students within 24 hours
- It should be added rubrics to gauge participation of students.

### **PURPOSE OF RESEARCH**

Psychiatric nurses should update knowledge and skills on your profession, due to increase mental problems in society, and the emergence of diseases and new therapeutic options.

Online distance nursing education programs have many advantages. Students eliminate travel barriers and its associated costs because students access to coursework through their personal computers (Shea 2008). Based on student-centered approach, the attitudes of target audience is an important factor to be considered in the development of distance education programs. The purpose of this research is to determine psychiatric nurses' attitudes toward interaction in distance nursing education.

## AIM AND METHOD OF THE RESEARCH

The aim of this study, to determine psychiatry nurses' attitudes toward the interaction in distance nursing education and to examine these attitudes based on demographics and computer/Internet usage. It is used comparative relational scanning model as method. The research data was collected through "The Scale of Attitudes of Nurses towards Distance Nursing Education", developed by the researcher.

## FINDINGS

### Demographic Characteristics

The participants of study 51% 26-35 years, 9.8 % 25 years and under, 8.2 %46-49 and %7.7 50 years and over. 55.2% married, 44.8% single. 33.5% graduate degree, 24.7% associate degree distance education, 20.1% vocational school of health, 12.9% associate degree graduates of formal, 8.8% graduate. 24.7% 1-5 years, 21.1% 6-10 years, 17% 11-15 years, 13.9% 16-20 years work. 24.7% working in the daytime, 7.2% working at night.

### Computer/Internet usage

89.7% has Internet-connected computer at home, 90.2% has Internet-connected computer at workplace. 93.8% of participations uses Internet. 69.1% wants to participate distance nursing education programs, 30.9% did not.

### Attitudes toward interaction

Descriptive statistics that belonging to Psychiatric nurses' attitudes levels toward interaction in the distance nursing education are given in table 1.

Table: 1  
Attitude Levels Toward Interaction

Nurses' attitudes toward interaction in the distance nursing education	Median	Mode
When faculty is monitoring the level of success, it affects my learning.	4	4
Written assignments that I prepare alone, are important.	4	4
Written assignments that I prepare the other students are important.	4	4
I believe that examinations that I will answer plenty of time to canalize to researching and reading	4	4
It is important that notifying by faculty if I reach the expected outcome in the end of course.	4	4
It is important that informing by faculty about interview time with students.	4	4

As shown above (table 1), the participant nurses in this research responded "I agree" attitude statements toward interaction in the distance nursing education. The highest agreed statement of nurses was "It is important that notifying by faculty if I reach the expected outcome in the end of course". The lowest agreed statement of nurses was "Written assignments that I prepare the other students are important."

### Analysis of Psychiatric Nurses' Attitudes Toward Interaction in the Distance Nursing Education To Variables

#### Age

According to age levels of psychiatric nurses' attitudes toward interaction in the distance nursing education are given in table: 2.

**Table: 2**  
**Attitude Levels in Terms of Age**

Items no	Age	I agree	Moderately agree	disagree	Total
1		$X^2= 2.023$	sd=2	p=.364	
2		$X^2= .194$	sd=2	p=.907	
3		$X^2= 2.755$	sd=2	p=.252	
4		$X^2= 2.461$	sd=2	p=.292	
5		$X^2= 1.775$	sd=2	p=.412	
6		$X^2= 4.134$	sd=2	p=.127	

In Table 2 was examined that there was no significant difference in terms of age in agreed levels to attitudes toward interaction.

### Level of Education

According to education levels of psychiatric nurses' attitudes toward interaction in the distance nursing education are given in table: 3.

**Table: 3**  
**Attitude Levels in Terms of Education**

Items No	Education	I agree	Moderately agree	disagree	Total
1		$X^2= 3.404$	sd=2	p=.182	
2		$X^2= 2.618$	sd=2	p=.270	
3		$X^2= 1.974$	sd=2	p=.373	
4		$X^2= .718$	sd=2	p=.698	
5		$X^2= .670$	sd=2	p=.715	
6		$X^2= .312$	sd=2	p=.856	

In Table 3 was examined that there was no significant difference in terms of education in agreed levels to attitudes toward interaction.

### Marital Status

According to marital status of psychiatric nurses' attitudes toward interaction in the distance nursing education are given in table: 4.

**Table: 4**  
**Attitude Levels in Terms of Marital Status**

Items No	Marital status	I agree	Moderately agree	disagree	Total
1		$X^2= 3.176$	sd=2	p=.204	
2		$X^2= 1.595$	sd=2	p=.450	
3		$X^2= 1.400$	sd=2	p=.497	
4		$X^2= .937$	sd=2	p=.626	
5		$X^2= 4.635$	sd=2	p=.099	
6		$X^2= 1.478$	sd=2	p=.477	

In Table: 4 was examined that there was no significant difference in terms of marital status in agreed levels to attitudes toward interaction.

### Working Years

According to working years of psychiatric nurses' attitudes toward interaction in the distance nursing education are given in table 5.

Table: 5  
Attitude Levels in Terms of Working Years

Items No	Working years	I agree	Moderately agree	disagree	Total
1		$X^2=2.629$	sd=4	p=.622	
2		$X^2=2.311$	sd=4	p=.679	
3		$X^2=6.021$	sd=4	p=.198	
4		$X^2=6.258$	sd=4	p=.181	
5		$X^2=2.981$	sd=4	p=.561	
6		$X^2=3.911$	sd=4	p=.418	

In Table 5 was examined that there was no significant difference in terms of working years in agreed levels to attitudes toward interaction.

Table: 6  
Attitude Levels in Terms of Years of Psychiatric Practice

Items No	Years of psychiatric practice	I agree	Moderately agree	disagree	Total
1		$X^2=5.538$		sd=4	p=.236
2	1-5 years	3 % 3.1	35 % 36.5	58 %60.4	96 %100
	6-15 years	6 %9.7	10 %16.1	46 %74.2	62 %100
	16 years and over	2 %5.6	12 %33.3	22 %61.1	36 %100
	Total	11 %5.7	57 %29.4	126 %64.9	194 %100
		$X^2=9.588$		sd=4	p=.048**
3		$X^2=5.137$		sd=4	p=.274
4	1-5 years	7 % 7.3	22 % 22.9	67 %69.8	96 %100
	6-15 years	5 %8.1	8 %12.9	49 %79.0	62 %100
	16 years and over	7 %19.4	11 %30.6	18 %50.0	36 %100
	Total	19 %9.8	41 %21.1	134 %69.1	194 %100
		$X^2= 10.664$		sd= 4	p=.031**
5	1-5 years	3 % 3.1	16 % 16.7	77 %80.2	96 %100
	6-15 years	4 %6.5	6 %9.7	52 %83.9	62 %100

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	16 years and over	3 %8.3	12 %33.3	21 %58.3	36 %100
	Total	10 %5.2	34 %17.5	150 %77.3	194 %100
		$X^2= 11.154$		sd= 4	p=.025**
6		$X^2=5.402$		sd=4	p=.249

### Years of psychiatric practice

According to years of psychiatric practice of psychiatric nurses' attitudes toward interaction in the distance nursing education are given in table 6. In Table: 6 was examined that there was significant difference in terms of years of psychiatric practice in agreed levels to attitudes toward interaction ( $p < .01$ ,  $p < .05$ ).

### Working Modes

According to working modes of psychiatric nurses' attitudes toward interaction in the distance nursing education are given in table: 7.

Table: 7  
Attitude Levels in Terms of Working Modes

Items No	Working modes	I agree	Moderately agree	disagree	Total
1		$X^2=4.783$ $sd=4$		$p=.310$	
2		$X^2=2.609$ $sd=4$		$p=.625$	
3		$X^2=4.402$ $sd=4$		$p=.354$	
4		$X^2=2.533$ $sd=4$		$p=.639$	
5		$X^2=4.727$ $sd=4$		$p=.316$	
6	Daytime	3 % 6.3	7 % 4.6	38 %79.2	48 %100
	Night	3 %21.4	4 %28.6	7 %50.0	14 %100
	Daytime and Night	5 %3.8	23 %17.4	104 %78.8	132 %100
	Total	11 %5.7	34 %17.5	149 %76.8	194 %100
		$X^2=9.609$ $sd=4$		$p=.048^{**}$	

In Table 7 was examined that there was significant difference in terms of years of psychiatric practice in agreed levels to attitudes toward the sixty item of interaction ( $p < .01$ ,  $p < .05$ ).

### Internet Usage

According to Internet usage of psychiatric nurses' attitudes toward interaction in the distance nursing education are given in table 8.

Table: 8  
Attitude Levels in Terms of Internet Usage

Items No	Internet usage	I agree	Moderately agree	disagree	Total
1		$X^2=3.131$ $sd=2$		$p=.209$	
2		$X^2=1.469$ $sd=2$		$p=.480$	
3		$X^2=1.507$ $sd=2$		$p=.471$	
4		$X^2=5.312$ $sd=2$		$p=.070$	
5		$X^2=5.739$ $sd=2$		$p=.057$	
6		$X^2=.739$ $sd=2$		$p=.691$	

In Table: 8 was examined that there was no significant difference in terms of Internet usage in agreed levels to attitudes toward interaction.

### Request For Distance Education

According to request for distance education of psychiatric nurses' attitudes toward interaction in the distance nursing education are given in table 9.

Table: 9  
Attitude Levels in Terms of Request for Distance Education

Items No	Request for distance education	I agree	Moderately agree	disagree	Total
1	Yes	7 % 5.2	15 % 11.2	112 %83.6	134 %100
	No	5 %8.3	16 %26.7	39 %65.0	60 %100
	Total	12 %6.2	31 %16.0	151 %77.8	194 %100
	$X^2=8.695$ $sd=2$ $p=.013^{**}$				
2	$X^2=1.569$ $sd=2$ $p=.456$				
3	$X^2=2.184$ $sd=2$ $p=.336$				
4	Yes	8 % 6.0	26 % 19.4	100 %74.6	134 %100
	No	11 %18.3	15 %25.0	34 %56.7	60 %100
	Total	19 %9.8	41 %21.1	134 %69.1	194 %100
	$X^2=9.018$ $sd=2$ $p=.011^{**}$				
5	Yes	5 % 3.7	18 % 13.4	111 %82.8	134 %100
	No	5 %8.3	16 %26.7	39 %65.0	60 %100
	Total	10 %5.2	34 %17.5	150 %77.3	194 %100
	$X^2= 7.549$ $sd= 2$ $p=.023^{**}$				
6	$X^2= 1.160$ $sd= 2$ $p=.560$				

In Table: 9 was examined that there was significant difference in terms of years of request for distance education in agreed levels to attitudes toward the first, fourth and fifth items of interaction( $p<.01$ ,  $p<.05$ ).

### DISCUSSION AND RESULTS

The participants responded "I agree" attitude statements toward interaction in the distance nursing education (Table 20). The highest agreed statement of nurses was "It is important that notifying by faculty if I reach the expected outcome in the end of course". Francis (2005), that improving communication with faculty and what is expected to be open affects success of students.



In addition, Wegmann and McCauley (2007) highlighted that communication should be established with each student, each week through email, discussion board reply and assignments response at least once supported the findings of this study.

The lowest agreed statement of nurses was "Written assignments that I prepare the other students are important." Although the rate of participation is low in this study, Shuster, Birkholz and Petri (2005) stated that nurses liked the written assignments in Web-based courses and they said that the written assignments supported their learning. On the other hand, in this study, there was significant difference between attitudes towards interaction and variables such as years of psychiatric practice, working modes, and request for distance education.

As a result, rate of participation in attitudes towards interaction in distance education is high. This study that includes psychiatric nurses can be repeated groups of nurses working in different areas.

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