

Evaluation of the Relationship Between Internet Addiction and Communication Competence Levels of Nurses

Sevgi Kizilci Oz¹, *Nese Kiskac², Muharrem Kiskac³

¹Department of Internal Medicine Nursing, Faculty of Health Sciences, Uskudar University, Istanbul, Turkey. ²Department of Internal Medicine Nursing, Faculty of Health Sciences, Istanbul Gelisim University, Istanbul, Turkey. ³Department of Internal Medicine, Bezmialem Vakif University Faculty of Medicine Hospital, Istanbul, Turkey.

*Email: nkiskac@gelisim.edu.tr

Abstract: The purpose is to determine the evaluation of the relationship between internet addiction and the communication competence levels of nurses. This descriptive study was conducted with 347 nurses in a Training and Research Hospital in Turkey. Data were collected with the Communication Competence Scale and the Internet Addiction Scale. In the evaluation of the data, the IBM SPSS statistics 22.0 program was used for statistical analysis in the study. At the same time, they were evaluating the study data in addition to descriptive statistical methods. Pearson correlation analysis was used to evaluate the correlation between variables. Internet addiction and communication competence are, respectively, found to be 45.22 ± 14.16 and 98.64 ± 18.98 . A negative and weak significant relationship ($r = -.270$; $p < .05$) was found between internet addiction and communication competence levels. The study determined that as the level of internet addiction among nurses increased, their communication competence decreased. Therefore, awareness of the effect of internet addiction on occupational functions is essential.

Keywords: Communication; internet addiction; nursing

INTRODUCTION

Communication is a process that involves two people understanding each other by sharing their feelings, thoughts, and information¹. Communication is an element that should be used effectively in both nurse-patient relations and healthcare practices among health professionals. While the nurse theorist Peplau² defined nursing as a therapeutic interpersonal process, Watson³ stated that the nurse and the patient are in therapeutic communication. The importance of interpersonal relations and communication in nursing practice was emphasized by other nurse theorists^{4,5}. In the nursing theory of lack of self-care, it is emphasized that nurses should have practical communication skills. At the same time, it is stated that technological development is required⁵. As a matter of fact, in the field of health, The use of the internet for recording patient data, accessing up-to-date information, communication, and patient education is becoming more and more common⁶.

With the increase in the use of the internet in business and social life, smartphones have become a part of daily life, along with computers and tablets. Smartphones, widely used for reasons such as communication, social relations, and access to information,

Corresponding Author: Nese Kiskac

Department of Internal Medicine Nursing, Faculty of Health Sciences, Istanbul

Gelisim University, Istanbul, Turkey.

Email : nkiskac@gelisim.edu.tr

have increased the time spent on the internet. While the internet environment provides benefits up to a certain level, its excessive use can lead to pathological conditions. Problematic internet use (discussed with the concepts of social media addiction, mobile phone/smartphone addiction, digital addiction, and internet addiction) has negative physiological, psychological, and social consequences. Internet addiction is generally defined as the inability to prevent excessive use of the internet, the emergence of situations such as extreme nervousness, tension, and restlessness⁷ when one cannot connect to the internet, and this situation was gradually disrupting the work, social and family life of the person⁸. Studies have determined that the internet⁹, which is used to facilitate communication, has adverse effects when used excessively and causes problems, especially in the communication and interpersonal relations. In studies with nursing students, It has been determined that internet addiction negatively affects communication skills and interpersonal relations¹⁰⁻¹³. In studies conducted with education faculty students, university students, and young people between the ages of 18-27, it is seen that interpersonal relationships decrease as the level of internet addiction increases^{14,15}.

When the studies on internet addiction and communication skills are examined, It is stated that studies are conducted on young people, primarily nursing students, and internet addiction negatively affects communication, an essential skill for the nursing profession. Studies on internet addiction in nurses are limited. In these studies, internet addiction and time management¹⁶, social media addiction and work engagement¹⁷, mobile phone addiction, procrastination and burnout¹⁸, and internet addiction and burnout¹⁹ were evaluated. To our knowledge, no studies examined the relationship between internet addiction and communication among nurses. However, nurses, generally a young population, can also use the internet uncontrollably, and their communication skills may be adversely affected. Therefore, this study was conducted to evaluate the relationship between internet addiction and the communication competence levels of nurses.

MATERIALS AND METHODS

It was conducted descriptively to determine nurses' communication proficiency and internet addiction levels, as well as the level of relationship between them. This study was conducted in a Training and Research Hospital in northwest Turkey. Five hundred nineteen nurses work at the hospital. Nurses who agreed to work from each hospital unit were included in the study. The study sample consisted of 347 nurses, 138 males, and 209 females, 50.4% of whom were undergraduates, with an average age of 32.2 ± 6.08 years, an average of 6.2 ± 4.09 years of employment, who agreed to participate in the study (Table 1).

In this study, nurses' data collection form, communication competence scale, and internet addiction scale were used to collect data.

The personal data collection form: It is a form prepared to learn the age, gender, educational status, marital status, and working year of nurses.

Communication Competence Scale (CCS): In this study, the communication competence scale developed by Wiemann²⁰ and adapted into Turkish by Koca and Erigüç was used to determine communication competence. As the scores on the scale increase,

communication competence increases. While Cronbach's alpha reliability coefficient of the scale was 0.868²¹, it was found to be 0.766 in this study.

Internet Addiction Scale (IAS): The IAS was developed to measure the internet addiction levels of individuals by Hahn and Jerusalem²². The Turkish validity and reliability study of IAS was done by Sahin and Korkmaz²³. The sum of the scores obtained from the three subscales gave individuals' levels of internet addiction summarized as low (20–51), medium (52–67), and high (68–100)²⁴. In the Turkish validity and reliability study of IAS, the Cronbach's alpha coefficient was 0.86, the loss of control subscale was 0.90, the tolerance development subscale was 0.88, and the negativity in the social relation subscale was 0.92²³. In our study, Cronbach's alpha coefficient of IAS was 0.82, the loss of control subscale was 0.78, the tolerance development subscale was 0.81, and negativity in the social relation subscale was 0.74.

This research was conducted following ethical principles. Written permissions were obtained from the scale authors before the study. The ethics committee of this research was given with the approval letter of Taksim Training, and Research Hospital Clinical Research Ethics Committee dated 12.06.2019 and numbered 71. Participants who voluntarily accepted to participate in the study were informed about the research and their rights as necessary. Their "informed consent" and written consent were obtained before the research. All the rights of the participants were respected, and the principles of voluntariness and confidentiality were paid attention to specific statistics computer program was used for statistical analysis in the study. In contrast, they evaluate the study data in addition to descriptive statistical methods (mean, standard deviation, frequency, range). Pearson correlation analysis was used to evaluate the correlation between variables. The results were evaluated at the 95% confidence interval and the significance level of $p < 0.05$.

RESULTS AND DISCUSSION

Table 1. Individual Characteristics of Nurses (N=347)

Variable	Number(%)
Age (Mean:32.2±6.08)	
≥ 30	209 (60.2)
< 30	138 (39.8)
Gender	
Men	138 (39.8)
Women	209 (60.2)
Educational Status	
Graduate	50 (14.4)
Undergraduate	175 (50.4)
Associate Degree	55 (15.9)
High School	67 (19.3)
Marital status	
Married	200 (57.6)
Single	147 (42.4)
Working Year (Mean: 6.2±4.09)	
<6 years	206 (59.4)
≥ 6 years	141 (40.6)

Internet addiction and communication competence levels of nurses are given in Table 2. The total mean score of the nurses' internet addiction scale was 45.22 ± 14.16 , and internet addiction was found to be at a low level. The scores of the nurses from the three sub-dimensions of the internet addiction scale were; loss of control at 16.88 ± 6.31 , the desire to stay online more at 10.29 ± 4.12 , and impairment in social relations at 18.06 ± 7.2 . The total mean score of the nurses from the communication competence scale was 98.64 ± 18.98 (Table 2).

Table 2. Internet Addiction and Communication Competence Levels of Nurses

	Scales	Mean \pm SD	Score Range
Internet Addiction	Loss of control	16.88 ± 6.31	8-40
	The desire to stay online more	10.29 ± 4.12	4-20
	The impairment in social relations	18.06 ± 7.2	7-35
	Internet addiction total	$45.22 \pm 14.16^*$	19-95
Communication Competence	Communication competence total	$98.64 \pm 18.98^{**}$	30-150

*Low Internet Addiction (IA) (20-51), Medium IA (52-67), High IA (68-100)³²

**The scale score range is 30-150, and an increase in the scale's score indicates an increase in communication competence.

The relationship between nurses' internet addiction and total communication competence level scores is shown in Table 3. There is a negative and weakly significant correlation between the total score of nurses' internet addiction and communication competence total score ($r = -.270$, $p < 0.05$). It was determined that there was a negative and weakly significant relationship between nurses' loss of control score and communication competence score ($r = -.174$, $p < 0.05$); a negative and weakly significant relationship between the desire to stay online more and the communication competence score ($r = -.259$, $p < 0.05$), and a negative and weakly significant relationship between the impairment in social relations score and the communication competency score ($r = -.230$, $p < 0.05$) (Table 3).

With globalization and increasing technology, nurses use technology and the internet to learn, improve themselves, inform patients and their families, and follow evidence-based research and social relations. However, the widespread use of the internet in all areas brings the risk of internet addiction. Social media/smartphone/internet addiction, which has been determined to negatively affect work engagement in nurses¹⁸ (Table 2) and lead to procrastination and burnout¹⁷, has critical importance in terms of nursing practices. Therefore, this study investigated the relationship between nurses' internet addiction and communication competence level (Table 2,3).

Table 3. The Relationship Between Nurses' Internet Addiction and Communication Competence Scores*

Internet Addiction Sub-dimension Scores		Communication Competence Total Score
Loss of control	r	-,174
	p	,001
The desire to stay online more	r	-,259
	p	,000
The impairment in social relations	r	-,230
	p	,000
Internet addiction total score	r	-,270
	p	,000

* Pearson correlation analysis

According to the scale used in this study, a score between 20-51 is low, a score between 52-67 is medium, and a score between 68-100 is defined as high internet addiction²³. The total score of internet addiction of the nurses in the study was 45.22±14.16, indicating low-level internet addiction. However, this score is very close to medium-level internet addiction, which is between 52-67 (Table 2). Similar results were found in previous studies conducted with nurses on the subject. In previous studies, It was determined that nurses had a low level of internet addiction²⁵, a social media addiction below the average¹⁷, and a moderate level of mobile phone addiction¹⁸. According to these results, it can be said that internet addiction is a significant problem that should be addressed in the field of nursing.

According to the Self-Care Deficit Nursing Theory, the nurse's social, interpersonal, and professional-technological abilities are the leading indicators of nursing agency⁵. While technology increases nursing agency, its excessive use harms interpersonal relations. With the nurses staying online more, the time spent by the patient to increase their self-care agency of the patient decreases, and their communication with the patient weakens. In studies conducted with nurses, It has been determined that there is a negative relationship between nurses' internet addiction and time management score averages¹⁶, social media addiction reduces work engagement¹⁷, and mobile phone addiction causes procrastination.

In this study, a negative and weakly significant relationship was found between the internet addiction scale total score and all sub-dimension scores (loss of control, desire to stay online more, and deterioration in social relations) and communication competence level scale scores. It was determined that the communication competence levels of the nurses whose internet use control decreased, who wanted to stay online more, and who had problems in social relations due to excessive internet use decreased (Table 3). A study examining the relationship between internet addiction and communication competence in nurses could not be found. However, the result of this study supports the results of studies conducted in different sample groups. In the study conducted by Kirag and Guver¹⁰ with nursing students, they found that internet addiction negatively affects interpersonal relationships. Nageeb and Al Enzi¹² found that communication skills

decreased as internet addiction increased in nursing students. In the study of Ilis and Gulbahce¹⁴ with Faculty of Education students, Aliusta et al.¹⁵ with university students, they found a significant inverse relationship between social media addiction and communication skills. In the study by Kirca and Kutlurkkan¹¹ with nursing students, Celikalp et al.¹³ with medical and nursing students, it was determined that communication skills were negatively affected by smartphone addiction. Despite all these results, communication is a fundamental skill that should be used effectively in nurse, patient, and healthcare professional relations and healthcare practices. The research was conducted in a single center, the number of nurses over the age of 30 was high, and 347 nurses in the center could be reached as the limitations of the research.

In this study, internet addiction was found to be moderate, and internet addiction seems to affect communication negatively. When the literature and the results of this research are compared, we can see that it is supportive. However, the fact that the study was conducted in a single center and the number of participants over 30 years old may have affected the moderate level of internet addiction. At the same time, the participants' access level to the internet was not questioned. Considering these limitations, the research should be supported by randomized controlled studies.

Today, when technology and the internet are actively used, this study is essential to evaluate internet addiction and communication skills and to see how nurses' communication is affected. When we look at the studies, it has been determined that internet addiction affects many communication-related parameters negatively, and a result supporting the literature was found in this study.

CONCLUSION

According to the results of our research, when the internet addiction level and communication competence levels of nurses were evaluated according to the minimum and maximum scores obtained from the scales, internet addiction was found to be at the upper limit of the low level (45.22 ± 14.16). Communication competence was at a moderate level (98.64 ± 18.98). There was a negative, weak and significant relationship between internet addiction and communication competence levels. In other words, as internet addiction increases, the communication levels of nurses decrease. According to Orem⁵, while technology increases nursing agency, in our study, internet use negatively affects communication when it becomes an addiction. Communication between patient-nurse and other health care teams is essential in health care practices and constitutes an indispensable element of quality in health care. It would be beneficial to provide in-service training to nurses for internet addiction, which affects communication negatively.

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CONFLICT OF INTEREST

All authors declare that they have no conflict of interest.

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