

## Metaphors for the Internet Used by Nursing Students in Turkey: A Qualitative Research

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### Abstract

*Purpose of Study:* This study was conducted within the scope of a qualitative and quantitative study pattern in order to determine nursing students' perceptions of the Internet through metaphors and the variables affecting such metaphors.

*Method:* The study sampling included all undergraduate students (575 individuals) attending a nursing school during the 2009-2010 spring semester. The entire population was targeted in the study; 500 students volunteered to participate, and 87.0% of the population was reached. The data were collected using an information form consisting of 9 questions identifying the socio-demographic attributes and Internet use habits of the students, and each student was asked to complete the sentence "Internet is like.....because....." in order to determine their perceptions relating to the concept of the Internet. The data were analysed using qualitative (content analysis) and quantitative (frequency, chi-square) data analysis methods.

*Findings:* It was found that 25.5% of the nursing students were freshmen, 24.9% were juniors, 26.5% were sophomores, and 23.1% were seniors; 85.7% were female and 14.3% were male; and their average age was 21.32±1.89%. The nursing students produced 204 valid metaphors in relation to the concept of the Internet. The top 3 metaphors were *library* (n: 51, 10.2%), *world* (n: 32, 6.4%), and *book* (n: 17, 3.4%). The metaphors produced by the nursing students in relation to the concept of the Internet were collected under 10 conceptual categories in terms of their common

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properties. With regard to the perceptions of the nursing students relating to the concept of the Internet, the predominant categories were "the Internet as a source of information" (133 students, 51 metaphors), "the Internet as a harmful tool" (109 students, 44 metaphors), "the Internet both as useful and harmful" (74 students, 56 metaphors), and "the Internet as a comprehensive tool" (91 students, 50 metaphors). It was also found that the conceptual categories did not show any difference according to the grades of the nursing students, the secondary school they graduated from, their Internet use habits, their primary purpose of using the Internet, and the place from where they connected to the Internet ( $p > 0.05$ ).

*Conclusions and Recommendations:* Results showed that a majority of the nursing students perceived the Internet as a source of information but stated that it should be used consciously. In line with these findings, metaphors can be used as a powerful study tool in determining, understanding, and explaining personal perceptions and mental images in relation with the Internet.

*Keywords:* Metaphor, perception, mental image, Internet, nursing student, nursing

In an information society, technological developments and advancements require nurses to follow up on developments, adapt to changes, need certain information, access the correct information needed, and use technology to reach such information. Much attention has been paid in the past decade to the use of technology in nursing education with many recent descriptions of Internet based learning experiences (Atack & Rankin, 2002; Özkul & Kaya, 2009; Wilkinson et al., 2004). This innovation in educational delivery methods overcomes traditional barriers to education and makes education more accessible for nursing students (Atack & Rankin, 2002).

Today, the Internet offers significant opportunities for accessing information in fields of life such as economics, politics, education, and health, as well as for producing, sharing, and storing information (Atack & Rankin, 2002; Çetin, 2008; Özkul & Kaya, 2009; Wilkinson et al., 2004). Thanks to improving Internet access speeds, increasing capacities in accessing, and distributing and storing scientific data, Internet use is becoming more widespread, and the facilities it provides are developing rapidly (Çetin, 2008; Estabrooks et al., 2003). One can only benefit from such facilities by using the Internet correctly, effectively, and efficiently. This is possible through identifying students' perceptions and views concerning the Internet and their thoughts about the nature and potential of the Internet, and developing educational programs according to their needs (Çelik & Kahyaoğlu, 2007; Estabrooks et al., 2003; Fırat & Kabakçı, 2010). The most powerful mental tools that can be used in identifying students' perceptions and demonstrating how the structure of the Internet is understood are the metaphors created for the concept of the Internet. Metaphors are not only explanatory, but also give important clues about how the

individual sees/perceives life, environment, events, and objects (Balci, 2011; Cerit, 2008; Erdoğan & Gök, 2008; Fırat & Kabakçı, 2010).

The term metaphor comes from the Greek term *metafora*, *meta* meaning beyond, in excess of, and *pherein* meaning to carry, to bear (Balci, 2011; Öztürk, 2007). The Turkish Language Institution (TDK, 2011) defines metaphor as “simile; any word used outside its real meaning by means of association or analogy; or using a word or concept in a way to have meanings other than the accepted meaning of it” (<http://tdkterim.gov.tr/bts/>, 02.05.2011). Metaphor, which is generally assumed to be used in literature, is a linguistic analogy frequently used by individuals in their daily life as well (Lakoff & Johnson, 2005 Retrieved: Saban, 2009). Although it is generally considered as a figure of speech enriching the discourse, it is far more important than that. Using metaphors is a form of thought and view that helps us to perceive the world in general. In this aspect, metaphors allow the individual to see a certain fact as another fact by directing the mind from a certain perception form to another (Morgan, 1980 Retrieved: Saban, 2009). In other words, metaphors not only influence thought processes, language, and science, but they also have a formative effect on the way an individual expresses himself (Balci, 2011; Saban, Koçbeker & Saban, 2006). While Gentner and Wolff (2000) defined metaphor as a “multi-dimensional image”, Mac Cormoc (1999) defined it as the “expression of similarities between the differences” and stated that metaphoric development had an important role in formal intelligence while creating and expressing an important element (Gentner & Wolff, 2000; Mac Cormoc, 1999 Retrieved: Güven & Güven, 2009). According to Lakoff and Johnson (2005), metaphor is one of the most powerful mental tools structuring, directing, and controlling our thoughts and how we develop and process events (Lakoff & Johnson, 2005 Retrieved: Saban 2008). Yob (2003) defined metaphor as “a powerful mental tool that an individual may use in understanding and explaining a highly abstract, complicated or theoretical fact”, Saban (2004) as “relating abstract concepts to concrete concepts” and Demirel (2005) as “borrowing the name of something which resembles what is tried to be understood.” The definitions suggest that metaphor is not a mere figure of speech used to enrich the language, but is used in our daily life as a powerful mental tool structuring, directing, and controlling our thoughts, and the concepts formed in the mind are explained through their association with other concepts (Cerit, 2008; Erdoğan & Gök, 2008; Fırat & Kabakçı, 2010; Saban, 2008; Saban, Koçbeker & Saban, 2006; Shuell, 1990). With such attributes, metaphors are used as a powerful tool to reveal the perceptions of students about a concept in research studies (Cerit, 2008; Cook & Gordon, 2004; McAllister & McLaughlin, 1996; Saban, 2004; Saban, Koçbeker & Saban, 2006). From this perspective, analysing, understanding, and explaining nursing students’ perceptions about the concept of “the Internet” through metaphors provides a significant clue regarding the use of metaphors as a study tool (Saban, 2008).

McNeil et al. (2003) suggested that health care delivery increasingly relies on information technologies for effective decision-making and care delivery. Computer use, and Internet and database use in particular, is of great importance in today’s

technological environment (Atack, 2003). Familiarity with using the Internet is necessary for many practical nursing applications. McCannon and O'Neal (2003) emphasized the most crucial aspects Internet use skills required by nurses.

Metaphor analysis, which is widely used in revealing the detailed views and experiences of professionals in regard to practices in nursing in foreign countries, is generally used in educational studies in our country, but there are no studies on this subject in the field of nursing (Cerit, 2008; Çelik & Kahyaoglu, 2007; Erdoğan & Gök, 2008; Fırat & Kabakçı, 2010; Güven & Güven, 2009; Öztürk, 2007; Saban, 2004; Saban, Koçbeker & Saban, 2006; Shuell, 1990; Yob, 2003).

It is important to understand students' perceptions regarding the Internet and configure educational programs in such a way as to develop this perception for the accurate, effective, and conscious use of the Internet. In light of this information, this study was planned to reveal the perceptions of the nursing students about the Internet by using metaphors and to determine certain variables affecting such metaphors; this was accomplished by conducting this study in a qualitative and quantitative pattern. With this purpose, answers to the following questions were sought:

1. What are the Internet-related metaphors used by the students?
2. Under what conceptual categories can the metaphors produced by the students be gathered in terms of their common characteristics?
3. Do the principal conceptual categories show any differences according to variables such as students' age, sex, school of graduation, whether they use the Internet or not, the primary purposes of Internet use, and location of accessing the Internet?

## Method

### *Study Design*

The study uses descriptive-quantitative research practices in terms of determining certain identifying characteristics and Internet usage status of the students, and uses qualitative research practices in terms of analysing and interpreting the Internet-related metaphors.

### *Population and Sample*

The sampling of the study consisted of all undergraduate students (575 students) attending a nursing school during the 2009-2010 spring term. The entire research group was targeted, and 87% (500 students) were reached.

The research was conducted at one of the oldest university schools of nursing in Turkey, founded in 1961. When the institute was evaluated for information sources, it was seen that there was a computer laboratory in the school. There are 28 computers available for student use in the school's computer laboratory, and there is

an average of 20 students per computer. Nursing students have the opportunity to access to the Internet 8 hours a day.

Of these nursing students, there were 25.5% freshmen, 24.9% juniors, 26.5% sophomores, and 23.1% seniors; there were 85.7% females and 14.3% males. Their average age was  $21.32 \pm 1.89$ . Of these students, 33.3% graduated from high school, 25.3% graduated from an Anatolian high school, and 13.5% graduated from a vocational health high school.

#### *Development and Implementation of Data Collection Tool*

The data in the study were collected by means of an information form consisting of 9 questions aiming to determine the socio-demographic characteristics and Internet usage status of the students and by asking the students to complete the sentence "*Internet is like.....because.....*" to reveal the students' perceptions about the concept of the Internet. In line with this purpose, the students were handed a blank paper with the above sentence at the top of the page and were asked to use this sentence to express their thoughts, focusing on a single metaphor. In metaphor studies, the term *like* is generally used to create a clearer association between the subject and origin of the metaphor. In this study, the participants were asked to produce *a reason or logical foundation* for their analogies. The nursing students were given unlimited time to develop their metaphoric images and were asked to write down their perceptions relating to the Internet. These compositions formed by students' handwriting and their own expressions were the basic data sources of the study.

#### *Data Analyses*

Five hundred students participated in the study. Two of the students were not included in the study as they failed to provide a logical foundation for their metaphors, and the metaphors of 498 students were assessed.

The metaphors developed by the students were analysed and interpreted in 6 stages: (1) *naming stage*, (2) *elimination stage*, (3) *re-organisation and compilation stage*, (4) *category development stage*, (5) *verification of validity and reliability stage*, and (6) *transferring the data into an SPSS package program for quantitative data analysis*.

*Stage 1. Naming:* In this stage, a temporary list was created for the students' metaphors and arranged in alphabetical order. In line with this purpose, it was assessed whether each student expressed a certain metaphor clearly. At this stage, the metaphor expressed in papers presented by each student was coded (e.g. world, sky, map, library, space, etc.).

*Stage 2. Elimination:* At this stage, each metaphor was resolved using "metaphor analysis" and "content analysis" techniques and was analysed in terms of similarities or common characteristics with other metaphors. For this, the metaphors produced by the students were reviewed individually, and each metaphor image was analysed in terms of the (a) subject of the metaphor, (b) origin of the metaphor, and (c) the relationship between the subject and origin of the metaphor. The students' papers were sorted on the basis of 4 primary criteria.

1. Papers including only definitions without any origin of metaphor,
2. Papers including a certain metaphor without giving any reason for the metaphor,
3. Metaphors having characteristics of more than 1 category, and
4. Metaphors that were illogical or had no contribution to a better understanding of the concept of the Internet. There was no metaphor without any contribution to better understanding the concept of the Internet.

*Stage 3. Reorganisation and compilation:* After the elimination process, there were 205 valid metaphors in 498 papers. The metaphors generated at this stage were ordered alphabetically and coded again. Each metaphor was reviewed, and a sample metaphoric expression was selected from each of the compositions representing each metaphor, and a list of metaphors was prepared. If the metaphoric expressions selected were too long, the most important (or striking) pieces of the metaphor were conveyed, keeping the students' own words and discourse. Ellipsis (...) was used in the metaphoric expressions to indicate the excluded words, sentences or paragraphs.

The information relating to the producer of the metaphoric image was coded within parentheses at the end of the related metaphor image. The codes have the following meanings: (1) The grades of the students were indicated as 1, 2, 3, 4; (2) Sex was indicated using M and F.; and (3) A19, A20, A21, etc. were used to indicate the age of the students.

*Stage 4. Categorization:* At this stage, the metaphors were gathered under 10 conceptual categories in terms of purposes-benefit-disadvantages of using the Internet on the basis of metaphoric expressions. In line with this purpose, the metaphors selected as samples were taken as the basis. Each metaphor was analysed in terms of purposes-benefits-disadvantages of using the Internet and coded with a specific code (e.g. information source, facilitator, guide, harmful, both beneficial and harmful, very comprehensive, etc.). Afterwards, these codes were expressed in terms of the purposes-benefits-disadvantages of using the Internet and turned into conceptual category headings.

*Stage 5. Ensuring validity and reliability:* Validity and reliability are the 2 most important criteria to confirm and increase the credibility of the study results. In this context, detailed reporting of the data collected and explanation of the ways in which the results were reached by the investigator are among the important criteria for **validity in a qualitative study (Yıldırım & Şimşek, 2005)**. There were two important procedures in terms of validity of the study results in this study.

1. The data analysis process was explained in detail.
2. For each of the metaphors obtained in the study, a sample metaphor, assumed to represent it in the best way, was determined, and these were provided in the findings.

Two significant strategies were followed for the internal reliability of the study. As part of the first strategy, both investigators worked in harmony at every stage of

the study from start to end and tried to reach a consensus in case of any conflict. As part of the second strategy, expert opinion was taken to confirm whether the metaphors under 10 conceptual categories represented the said conceptual categories. In line with this purpose, the opinion of an academician in the same program was taken. The opinion of the expert was compared to the opinions of the investigators, and the number of consensuses and divergences was determined, and **the internal reliability of the study was calculated using Miles and Huberman's** (1994, p. 64) formula ( $\text{Reliability} = \frac{\text{Consensus}}{\text{Consensus} + \text{Divergence}}$ ). According to Miles and Huberman, if the concordance between the assessments of the expert and the investigators approximates to or exceeds 90%, the desired level of reliability is reached. There was 97.8% concordance (reliability) in the reliability of this study.

The expert academician associated the metaphor of *ocean* with the sixth conceptual category (the Internet as an indefinite concept) instead of the tenth conceptual category (the Internet as a very comprehensive tool), the metaphor of *space* with the sixth conceptual category (the Internet as an indefinite concept) instead of the tenth conceptual category (the Internet as a very comprehensive tool), the metaphor of *Istanbul* with the tenth conceptual category (the Internet as a very comprehensive tool) instead of the sixth (the Internet as an indefinite concept), the metaphor of *black hole* with the first conceptual category (the Internet as information provider/source) instead of the tenth conceptual category (the Internet as a very comprehensive tool), the metaphor of *reading very much* with the tenth conceptual category (the Internet as a very comprehensive tool) instead of the first conceptual category (the Internet as information provider/source), the metaphor of *book* with the sixth conceptual category (the Internet as an indefinite concept) instead of the tenth conceptual category (the Internet as a very comprehensive tool), the metaphor of *devil's triangle* with the seventh conceptual category (the Internet as a harmful tool) instead of the ninth conceptual category (the Internet both as beneficial and harmful tool), the metaphor of *trash* with the third conceptual category (the Internet as a facilitator) instead of the ninth conceptual category (the Internet both as a beneficial and harmful tool), the metaphor of *physiological need* with the tenth conceptual category (the Internet as a very comprehensive tool) instead of the fifth conceptual category (the Internet as a basic need), the metaphor of *neighbour* with the tenth conceptual category (the Internet as a very comprehensive tool) instead of the third conceptual category (the Internet as a facilitator), the metaphor of *rubber* with the ninth conceptual category (the Internet both as a beneficial and harmful tool) instead of the ninth conceptual category (the Internet as a very comprehensive tool). Given the data, reliability was  $487 / (487 + 11) = 97.8$ . These results show that the desired reliability level was reached.

*Stage 6. Transferring the data into SPSS package program for quantitative data analysis:* The data were analysed using qualitative (content analysis) and quantitative (frequency, chi-square) data analysis techniques. After the metaphors were defined and 10 conceptual categories consisting of these metaphors were developed, the data were transferred to the SPSS package program. The frequency and percentage of nursing students representing each metaphor and category were calculated.

Afterwards, in order to determine whether the categories differed according to students' age, sex, secondary school of graduation, Internet usage status, and the primary purpose of using the Internet, a Pearson chi-square test was used, and the results were analysed.

#### *Ethical Considerations*

The data were collected on voluntary basis after the written approval of the Nursing School Directorate was taken. In addition, the participants were informed verbally before data was collected, and they were asked to complete the papers after the necessary explanations were made.

#### *Limitations of the Study*

The results of the study are limited to the students attending a nursing school, and they cannot be generalised.

## Results

In this section, the findings relating to the identifying characteristics and Internet-related metaphors of the students are analyzed as sub-sections according to the study questions and are presented in tables.

All the students were using the Internet (100%): 93.4% of them used it primarily to access information (education), 70.3% used it for chatting, 24.9% for playing games, 16.5% for meeting new people, 10.4% for following up on news and learning exam results, and 8.0% for shopping. 62.2% stated that they accessed the Internet through their personal computers, 60.4% used the computer room at the school, 36.3% used Internet cafes, and 26.9% used their friends' computers.

### *1. What are the Internet-related metaphors used by the students?*

The students developed 204 metaphors related to the Internet. 142 metaphors were represented by 1 student each. The remaining 62 metaphors were expressed by students whose number ranged between 2 and 51.

The top 10 metaphors were *library* (n: 51, 10.2%), *world* (n: 32, 6.4%), *book* (n: 17, 3.4%), *drug* (n: 15, 3.0%), *water* (n: 13, 2.6%), *cigarette* (n: 13, 2.6%), *encyclopedia* (n: 11, 2.2%), *alcohol* (n: 10, 2.0%), *ocean* (n: 10, 2.0%), *spider's web* (n: 10, 2.0%), *virus* (n: 8, 1.6%), and *sea* (n: 7, 1.4%).

### *2. Under what conceptual categories can the metaphors produced by the students be gathered in terms of their common characteristics?*

Table 1 shows the categorical distributions of the Internet-related metaphors. The metaphors developed by the participating students were collected under 10 conceptual categories according to their common characteristics.



Table 1.  
*Distribution of the Internet-Related Metaphors of the Students*

<i>Categorical</i>	<i>Metaphors</i>	<i>Producing a metaphor Number of Students (%)</i>	<i>Number of metaphor (%)</i>
Internet as an Information Source	Network, Wood, Octopus, My mother, Webster, Research, Dating, Brain, Knowledge, Knowledge tree, Information Network, Know-How, Information store, Information source, Information boxes, Info engines, Pine tree, Sea world, Educator, Index, The philosopher, Newspaper, Newsletter, Memory, All-Knowing One, Teacher, Light, Human, Human brain, The ant antenna, The Source of the book, Library, Pomegranate, Spider, Spider web, Robot, Dictionary, The latest technology Product, Telephone, Television, TV, Books, Newspapers, Aircraft, Kites, Space shuttle, The helpful one, Life, Food	133 (%26,7)	51 (%25,0)
Internet as a Harmful Tool	Wood, Habit, An addictive substance, Habits, Shopping, Alcohol, Sex, Love, Addiction, Addictive substance, A child's dreams, The bomb, An empty box, Infectious disease, Monster, Die, Chocolate, Trash, The world, The devil triangle, Vacuum cleaner, Heroin, Disease, Fast car driving, Coffee shop, Closed the prison, The black hole, Hurricane, Girl, Hourglass, Drug addiction, Gaming, Web, Deviance, Smoking, Television, Drugs, Space, Virus, Orbit, Time, Time is the enemy time thief, Time loss	109 (%21,9)	44 (%21,6)
Internet as a Very Comprehensive Tool	Shopping Center, Key, Anne, Webster, Nutrition, Information Networks, Information Beast, The Information Store, Multi-Reader, Genius, Sea, Friendly, World, Center Of The World, Traveling The World, To Know, The Universe, Is A Physiological Need, Hiking, Rainbow, Sky , Videophone, The Sun, Life, Literal, Everything, Light, Medicine, Human, Istanbul, Door, Book, Neighbor, Puppet, Library, Cabbage, Market, Wonder, Wood, Window, An Infinite Space, Magic Stick, Magic Box, The Magic Sphere, Infinite, Dictionary, Sports, Making The Turkish Language, Flying, Life, Food	91 (%18,3)	50 (%24,5)

Table 1. continue...

<i>Categorical</i>	<i>Metaphors</i>	<i>Producing a metaphor Number of Students (%)</i>	<i>Number of metaphor (%)</i>
Internet Both as a Beneficial and Harmful Tool	Rivers, Tool, Antibiotic, Driving, Friends, Vine Leaves, Honey bee, The brain, Information pollution/contamination, Info cubes, Info heap, A place/room, Flowers, Landfill, Marine, Nature, World, Thinking, Elim, The universe, Rosewood, Map, Life, The good/and bad, Drug, Human language, Pen, Queen, Lock, Coke, Corticosteroids, Well, The library, Tire, Dealers, Fruit, Morphine, Candlelight, Nuclear, Ocean, Spider-network, Painting, Wind, Magic stick, Shooting, Water, Sugar, Television, The cliff, half a glass of water, Life philosophy, Everything in life, Bow, Cooking supper, Dining, Food	74 (%14,8)	56 (%27,4)
Internet as a Facilitator	At the bank, The Information store, Bicycle, Rendezvous, Bags, Garbage, Sea world, The mouse, Life, Light, Teleportation, Communication network, Communicates the media, Business area, Library, Store, letter, School meeting, Toys, Spider network, Windows, Comfort, Magic box, Telephone, Fly, Write text, Read, Result of a mental status	33 (%6,6)	29 (%14,2)
Internet as an Indefinite Concept	Sea, Bottomless Pit, A mouse, Whirlpool, Black hole, Bird, Ocean, Space	18 (%3,6)	8 (%3,9)
Internet as a Basic Need	Life, The existing Object in our lives, Water, Food	13 (%2,6)	4 (%2,0)
Internet as Fun	Dating, Entertainment, A communication tool, Kiraathane, Toys, Telephone, Television	12 (%2,4)	7 (%3,4)
Internet as a Changing-Developing Tool	Morning, Wood, Moron, Current news, Human, Human life, Magic, Magic box	9 (%1,8)	8 (%3,9)
Internet as a Guide	World, Map, Compass, Auxiliary tools, Travel	6 (%1,2)	5 (%2,4)

Examples of students' metaphorical expressions are given in the relevant category, and they include the exact sentences of the participants.

#### *Conceptual Categories*

##### *Category 1: The Internet as an Information Source*

When Conceptual Categories are examined (Table 2), it is seen that the category of "the Internet as an Information Source" consists of 51 metaphors (25.0%) produced by 133 students (26.7%). The most common metaphors of this category are *library, book, encyclopedia, and tree*.

*"Internet is like a library.. We can reach various information (correct or incorrect) by using less time and energy." (1, F, A19)*

*"Internet is like an encyclopedia. Any information can be reached rapidly and easily (compact). It is under our fingertips." (1, F, A18)*

*"Internet is like the world. I can obtain every type of information in the world. With a single click..." (3, F, A20)*

##### *Category 2: The Internet as a Harmful Tool*

When Conceptual Categories are examined (Table 2), it is seen that the category of "the Internet as a Harmful Tool" consists of 44 metaphors (21.6%) produced by 109 students (21.9 %). The most common metaphors used in this category are *drug, cigarette, alcohol, virus, spider's web, love, and addiction*.

*"Internet is like alcohol. It causes addiction over time." (1, F, A20)*

*"Internet is like a spider's web. When you get caught, it is difficult to escape, and it is a system where you waste time for nothing." (2, F, A22)*

*"Internet is like a drug. It gives you pleasure and joy when you first start it. With time, it becomes an indispensable part of your life. You think you use it because you want it. Then, the time you access the Internet starts to be insufficient, and you increase the time spent on the Internet. You want more and more. You think about it, when you are not on the Internet. You start to say I can access the Internet more instead of spending time outdoors, and withdrawal symptoms start. You can save yourself from this addiction if you are strong and aware." (4, F, A24)*

##### *Category 3: The Internet as a Very Comprehensive Tool*

When Conceptual Categories are examined (Table 2), it is seen that the category of "the Internet as a Very Comprehensive Tool" consists of 50 metaphors (24.5%) produced by 91 students (18.3%). The most common metaphors of this category are *world, shopping centre, life, library, forest, and dictionary*.

*"Internet is like a forest. Just as various trees are together in a forest, the Internet also includes any type of information, games, friendship, etc." (3, F, A21)*

*"Internet is like life. It includes everything, we can find any information we need, any person we want, chat with friends, make searches, have fun, follow up the agenda, read news."* (3, F, A20)

#### Category 4: The Internet Both as a Beneficial and Harmful Tool

When Conceptual Categories are examined (Tablo 2), it is seen that the category of "the Internet both as a Beneficial and Harmful Tool" consists of 56 metaphors (27.4%) produced by 74 students (14.8 %). The most common metaphors of this category are *water, world, life, drug, trash, and eating*.

*"Internet is like a candy. It is nice and gives pleasure, but excessive use is harmful."* (2, F, A20)

*"Internet is like antibiotics. You don't discuss its benefits and harms. Long-term used medications may have toxic effects, and similarly long and insufficient use of Internet may be harmful. But it facilitates your life if used effectively."* (3, F, A21)

*"Internet is like gun. A gun may protect the country while defending it against the enemies, but it can also be a destructive tool because of internal conflicts of people. Internet is similar. Internet is a very beneficial tool, when used consciously, but it can be an addictive gun destroying one's life, when used for chatting, playing games, etc."* (4, F, A21)

#### Category 5: The Internet as a Facilitator

When Conceptual Categories are examined (Tablo 2), it is seen that the category of "the Internet as a Facilitator" consists of 29 metaphors (14.2%) produced by 33 students (6.6%). The most common metaphors of this category are *teleportation, library, store and telephone*.

*"Internet is like a library. I can find anything I look for. It is easy to use. It facilitates our life."* (1, F, A20)

*"Internet is like teleportation. It is very fast. We reach the fastest way possible whenever we want. What makes Internet appealing is, I think, that it is fast and easily accessed."* (2, F, A20)

#### Category 6: The Internet as an Indefinite Concept

When Conceptual Categories are examined (Tablo 2), it is seen that the category of "the Internet as an Indefinite Concept" consists of 8 metaphors (3.9%) produced by 18 students (3.6%). The most common metaphors of this category are *ocean and space*.

*"Internet is like the space. It has no limits, no definite borders."* (1, F, A20)

*"Internet is like an ocean. Unique ocean with living things of indefinite variability, indefinite information, indefinite colours..."* (4, F, A34)

Category 7: *The Internet as a Basic Need*

When Conceptual Categories are examined (Tablo 2), it is seen that the category of "the Internet as a Basic Need" consists of 4 metaphors (2.0%) produced by 13 students (2.6%). The most common metaphors of this category are *water* and *eating*.

*"Internet is like water. It is essential for human[s]."* (2, F, A23)

*"Internet is like eating. I feel like hungry when I don't access Internet. I think, this is enough to explain it."* (2, F, A23)

Category 8: *The Internet as Fun*

When Conceptual Categories are examined (Tablo 2), it is seen that the category of "the Internet as Fun" consists of 7 metaphors (3.4%) produced by 12 students (2.4%). The most common metaphors of this category are *friend*, *fun*, and *toy*.

*"Internet is like a toy. It is perfect for playing games and spending time in your spare time, and you don't understand how the time passes."* (1, F, A18)

*"Internet is like a friend... It is with you whenever you need it, you spend hours with it without getting bored."* (3, F, A19)

Category 9: *The Internet as a Changing - Developing Tool*

When Conceptual Categories are examined (Tablo 2), it is seen that the category of "the Internet as a Changing-Developing Tool" consists of 8 metaphors (3.9%) produced by 9 students (1.8%). The most common metaphors of this category are *tree*, *current news* and *magic box*.

*"Internet is like current news. It changes every day, and you become aware of different things each day..."* (1, F, A20)

*"Internet is like human life. New things start and end continuously."* (3, F, A22)

Category 10: *The Internet as a Guide*

When Conceptual Categories are examined (Tablo 2), it is seen that the category of "the Internet as a Guide" consists of 5 metaphors (2.4%) produced by 6 students (1.2%). The most common metaphors of this category are *map*, *world* and *compass*.

*"Internet is like a map. It provides us paths and guidance allowing us to reach to things we want."* (3, F, A22)

*"Internet is like a compass. It leads us to the place we want to reach. It guides us in everything we don't know..."* (4, F, A24)

3. Do the principal conceptual categories show any difference according to variables such as students' age, sex, school of graduation, whether they use the Internet, the primary purposes of their Internet use, and the location of their Internet access?

It was also found that the conceptual categories did not show any difference according to the grades of the nursing students, the secondary school they graduated from, Internet use habits, their primary purpose of Internet use, and where they connected to the Internet ( $p>0.05$ ).

### Discussion and Conclusion

The findings of this study reveal the students' perceptions about the Internet through metaphors which highlighted some important points. First of all, the nursing students produced many metaphors to explain the Internet (204). For example, the Internet was defined by the students as "world", "library", "drug", "encyclopedia", and "water", as well as "toy", "fun", "magic box", "store", "spider's web", and "compass." As highlighted by Yob (2003, p. 134), metaphor is different from the concept it narrates, and although it provides a strong point of view for such concepts, it is usually less than the concept. To fill this gap, many metaphors are needed. Therefore, it is obvious that the Internet cannot be explained entirely with a single metaphor.

Secondly, in the metaphors produced by the nursing students about the Internet, the first conceptual category was "the Internet as an information source" and the second conceptual category was "the Internet as a harmful tool". In relevant studies, it was shown that the primary purpose of the students in using the Internet was easy access to information and sharing and storing information (Adams & Timmis, 2006; Akkoyunlu, Sağlam & Atav, 2004; Aksu & İrgil, 2003; Estabrooks et al., 2003; Gül, Gençtürk & Bozkurt, 2003; Koç, 2006; McCannon & O'Neal, 2003; Thompson et al., 2001). These results suggested that the Internet was primarily used by the students to get information. It is important in terms of updating students' knowledge for students to perceive the Internet as an information source in an environment in which information changes.

The second conceptual category was "the Internet as a harmful tool." The relevant studies suggested that problems such as in-family conflicts, economic losses such as phone bills and Internet café costs, and addiction and alienation from the society would be encountered. This suggested that the students were aware of the harm caused by the Internet (Adams & Timmis, 2006; Estabrooks et al., 2003; McCannon & O'Neal, 2003; Thompson et al., 2001). However, contrary to the belief that the Internet may alienate individuals from society, individuals can reach different social environments thanks to the Internet and carry their relationships to social media; thus it is obvious that the Internet has both positive and negative effects. This is positive for students who think that the Internet is harmful.

Another striking point was that the students defined the Internet as "a basic need". The relevant studies show that the students engaged in many activities through the Internet, such as chatting with people in another part of the world, sending e-mails, talking to another person through a microphone, making video-conferences, obtaining information from thousands of databases, libraries, and news groups all around the world, getting current information about international

developments, listening to music or watching movies, playing games with other people, shopping from a wide range of product groups, etc.; therefore, the Internet played a great role in their lives (Akkoyunlu, Sağlam & Atav, 2004; Aksu & İrgil, 2003; Atack & Rankin, 2002; Ayhan & Balcı, 2009; Dursun, 2004; Estabrooks et al., 2003; Şenyuva, 2007). This result is thought-provoking, considering that the Internet plays such an important role in the lives of the students. The Internet is defined as **constituting important parts of students' lives, and it is emphasized that they should gain computer and Internet skills suitable to their education.**

In conclusion, a majority of the nursing students perceived the Internet as a source of information and believed that it should be used consciously. Although students think positively about the Internet, they also need training on how to use Internet properly. In the light of these results, it is suggested that further studies should be conducted in order to determine the perceptions of nursing students about the Internet. These kinds of studies will be important for constructing an Internet-based education and training program.

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## **Türkiye’de Hemşirelik Öğrencilerinin İnternete İlişkin Metaforları: Kalitatif Bir Çalışma**

### **Atıf:**

- Senyuva, E. & Kaya, H. (2013). Metaphors for the Internet Used by Nursing Students in Turkey: A Qualitative Research. *Eğitim Araştırmaları-Eurasian Journal of Educational Research*, 50, 87-106.

### **(Özet)**

Günümüzde bu nitelikler arasında bireyin, gereksinim duyduğu bilgiye ulaşmada önemli yollardan biri olan İnterneti doğru, etkin ve verimli kullanma becerisine sahip olması öne çıkmaktadır (Atack & Rankin, 2002; Özkul & Kaya, 2009; Wilkinson et al., 2004). İnternetin doğru, etkin ve verimli kullanılmasında ise hemşirelik öğrencilerinin İnternete ilişkin algılarının ve bakış açılarının, İnternetin doğasına ve potansiyeline ilişkin düşüncelerinin belirlenerek gereksinimleri doğrultusunda uygun eğitim programlarının oluşturulması ile mümkündür (Çelik & Kahyaoglu, 2007; Estabrooks et al., 2003; Fırat & Kabakçı, 2010). Öğrencilerin İnternete ilişkin algılarının belirlenmesinde, İnternetin yapısının nasıl anlaşıldığının ortaya konmasında yararlanılabilecek en güçlü zihinsel araçlar, öğrencilerin bu kavramla ilgili oluşturdukları metaforlardır (Cerit, 2008; Erdoğan & Gök, 2008; Fırat & Kabakçı, 2010). Eğitimde de özellikle yeni bir öğrenme gerçekleşeceğinde öğrenmeyi kolaylaştırmak ve akılda kalıcılığını sağlamak için sıklıkla eşdeğer öğelerin birbirleri yerine diğer bir deyişle metaforların kullanılması yoluna başvurulur. Bu perspektiften bakıldığında hemşirelik öğrencilerinin “İnternet” kavramına ilişkin algılarını metaforlar aracılığıyla incelemek, anlamak ve açıklamak, metaforların birer araştırma aracı olarak kullanılabilmesine dair önemli bir ipucu sağlamaktadır (Saban, 2008).

### Araştırmanın Amacı

Bu araştırma, öğrencilerin İnternete ilişkin algılarını metaforlar aracılığıyla ortaya çıkarmak ve bu metaforları etkileyen bazı değişkenleri belirlemek amacı ile nitel ve nicel araştırma deseni kapsamında gerçekleştirildi.

### Yöntem

Araştırmanın evrenini ve örneklemini, bir hemşirelik yüksekokulu'nda 2009-2010 öğretim yılı bahar döneminde öğrenim gören tüm lisans öğrencileri (575 öğrenci) oluşturdu. Araştırmada evrenin tamamına ulaşılması hedeflenmiş, araştırmaya katılmayı kabul eden 500 öğrenci ile gerçekleştirildi. Araştırmada evrenin %87'sine ulaşıldı. Araştırmada veriler; öğrencilerinin sosyo-demografik özelliklerini ve İnternet kullanım durumlarını belirlemeye yönelik 9 sorudan oluşan Bilgi Formu ve öğrencilerinin İnternet kavramına ilişkin algılarını ortaya çıkarmak amacıyla her bir öğrenciden "İnternet ..... gibidir; çünkü ....."cümlesini tamamlaması istenerek toplandı. Veriler, nitel (içerik analizi) ve nicel (frekans,ki-kare) veri çözümleme teknikleri kullanılarak analiz edildi.

### Bulgular

Araştırmada, öğrencilerin %25,5'inin birinci, %24,9'unun ikinci, %26,5'inin üçüncü, %23,1'inin dördüncü sınıfta öğrenim gördüğü, %85,7'sinin kız, %14,3'ünün erkek, yaş ortalamalarının  $21.32 \pm 1.89$  olduğu belirlendi. Öğrenciler, İnternet kavramına ilişkin 204 adet geçerli metafor geliştirdi. İlk üç sırada; *kütüphane* (n: 51, %10,2), *dünya* (n:32, %6,4), *kitap* (n:17, %3,4) metaforlarının yer aldığı belirlendi. Hemşirelik öğrencilerinin İnternet kavramına ilişkin geliştirdikleri metaforlar ortak özellikleri bakımından on kavramsal kategori altında toplandı. Hemşirelik öğrencilerinin, İnternet kavramına ilişkin algılarında, "Bilgi kaynağı olarak İnternet" (133 öğrenci, 51 metafor), "Zararlı bir araç olarak İnternet" (109 öğrenci, 44 metafor), "Hem yararlı hem zararlı olarak İnternet" (74 öğrenci, 56 metafor) ve "Çok kapsamlı olarak İnternet" (91 öğrenci, 50 metafor) kavramsal kategorilerinin öne çıktığı görüldü. Ayrıca, kavramsal kategorilerin, hemşirelik öğrencilerinin sınıfı, mezun olduğu ortaöğretim kurumu, İnternet kullanım kullanmama, İnterneti öncelikle kullanma amacı ve İnternete bağlandığı yerler açısından farklılık göstermediği saptandı ( $p > 0,05$ ).

### Tartışma

İnternetin öğrenciler tarafından "dünya", "kütüphane", "uyuşturucu", "ansiklopedi", "su" olarak tanımlandığı gibi; "oyuncak", "eğlence", "sihirli kutu", "mağaza", "örümcek ağı" ve "pusula" olarak da tanımlandığı görülmektedir. Yob'un (2003, s. 134) da vurguladığı gibi metafor, söz ettiği olgudan farklıdır ve bu olguya ilişkin çok güçlü bir bakış açısı sunsa da çoğu zaman ondan daha azdır. Bu açığı kapatabilmek için birçok metaforun kullanılması gerekir. Bu durumda, İnternetin sadece tek bir metaforla bir bütün olarak açıklanabilmesinin mümkün olmayacağı açıktır.

İkinci olarak, hemşirelik öğrencilerinin İnternete ilişkin metaforlarında, ilk sırada "bilgi kaynağı olarak İnternet", ikinci sırada "zararlı bir araç olarak İnternet" kavramsal kategorisi yer almaktadır. İlgili araştırmalarda, öğrencilerin İnterneti kullanım amaçları arasında bilgiyi paylaşma, saklama ve bilgiye kolay erişimin öne çıktığı görüldü (Adams & Timmis, 2006; Akkoyunlu, Sağlam & Atav, 2004; Aksu &

İrgil, 2003; Estabrooks et al., 2003; Gül, Gençtürk & Bozkurt, 2003; Koç, 2006; McCannon & O'Neal, 2003; Thompson et al., 2001). Bu sonuçlar, İnternetin öğrenciler tarafından öncelikli olarak bilgi edinmek amacıyla kullanıldığını gösterdi. Bilginin hızla değiştiği bir ortamda öğrencilerin İnterneti bilgi kaynağı olarak görmeleri bilgilerini güncellemeleri açısından önemlidir.

İkinci sırada yer alan "Zararlı bir araç olarak İnternet" kavramsal kategorisi öne çıkmaktadır. İlgili araştırmalarda, aile içi çatışmalar, yüksek telefon faturası ve İnternet kafelere yapılan ödemeler nedeniyle ekonomik kayıplar ve bağımlılık yaratma, çevreden soyutlanma gibi sorunlarla da karşılaşılacağını vurgulamaktadır (Adams & Timmis, 2006; Estabrooks et al., 2003; McCannon & O'Neal, 2003; Thompson et al., 2001). Bu durum, öğrencilerin İnternetin zararları hakkında bilinçli olduklarını göstermektedir. Ancak, İnternetin bireyi çevreden soğutabileceği düşüncesinin aksine bireyin İnternet sayesinde farklı sosyal çevrelere daha rahat ulaşma olanağı bulduğu ve dolayısıyla bu yolla ilişkilerini sosyal alana taşıdığı dikkate alındığında İnternetin beraberinde getirdiği olumlu ve olumsuz durumların olabileceği açıktır. Bu sonuç, öğrencilerin İnternetin zararları olabileceğini düşünmeleri açısından olumludur. Ancak, öğrencilerin İnterneti doğru kullanmalarını sağlayacak eğitimlere gereksinimi olduğunu düşündürmektedir.

Öğrenciler İnterneti "temel gereksinim olarak" tanımlamaları dikkat çeken bir diğer noktadır. İlgili araştırmalarda, öğrencilerin İnterneti kullanım amaçları arasında öncelikle dünyanın bir ucundaki insanlarla sohbet etmek, elektronik mail göndermek, bir mikrofon aracılığıyla bilgisayarın diğer ucundaki bir insanla konuşmak ve video konferanslar yapmak, dünya çapındaki binlerce veri tabanından, kütüphaneden ve haber gruplarından bilgi sağlamak, dünyada olan gelişmeler hakkında anında haber almak, müzik dinlemek veya film seyretmek, insanlarla karşılıklı olarak oyunlar oynamak, sayısız ürün yelpazesi içerisinde alışveriş yapmak vb. birçok etkinliği İnternet üzerinden yaptıklarını dolayısıyla yaşamlarında büyük bir yer edindiği bulundu (Akkoyunlu, Sağlam & Atav, 2004; Aksu & İrgil, 2003; Atack & Rankin, 2002; Ayhan & Balcı, 2009; Dursun, 2004; Estabrooks et al., 2003). Bu sonuç, öğrencilerin İnterneti yaşamlarında bu kadar önemli bir yere koymaları açısından oldukça düşündürücüdür. İnternetin öğrencilerin yaşamının önemli bir bölümünü oluşturması, onların eğitimleri sırasında bilgisayar ve İnternet teknolojilerini olumlu yönde kullanma becerilerini kazanarak yetiştirilmesi gerekliliğini ortaya koymaktadır.

#### *Sonuç ve Öneriler*

Sonuç olarak, hemşirelik öğrencilerinin çoğunluğu İnterneti bilgi kaynağı olarak algılamakta ancak bilinçli olarak kullanılması gerektiğini belirtmektedirler. Bu sonuçlar, öğrencilerin İnternet konusunda olumlu düşündüklerini ancak olumlu yönde kullanmaları konusunda eğitime gereksinimleri olduğuna işaret etmektedir. Bu sonuçlar ışığında hemşirelik öğrencilerinin, İnternete ilişkin algılarının neler olduğunu ve onların İnternet hakkındaki düşüncelerini analiz eden çalışmaların yapılması önerilebilir. Bu çalışmalar eğitim programlarının yapılandırılmasına ışık tutması açısından önemlidir.

*Anahtar Sözcükler:* Metafor, algı, zihinsel imge, İnternet, hemşirelik öğrencisi, hemşirelik