

## Original Article

## Determining Nurses' Knowledgeability of Nursing Diagnoses

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**Abstract**

**Purpose:** This study has been conducted with a view to determining nurses' level of cognizance and knowledgeability in regard to nursing diagnoses that are frequently encountered in the case of individuals who need care.

**Method:** Research population consisted of 650 nurses who have been working at Erzurum Ataturk University Research Hospital. The study has covered 100 nurses who agreed to take part in the research. The data has been collected by means of a questionnaire that was developed by the researcher and which included questions aimed at determining the nurses' demographic characteristics as well as their level of cognizance and knowledgeability in respect of nursing diagnoses. Data collected has been analysed by use of SPSS software.

**Findings:** 81.0 % of the nurses have stated that nursing diagnoses must be used in patient care. Likewise, the rate of nurses who have suggested that trainings provided in the field of nursing diagnoses are inadequate is also 81.0 %. On the other hand, 33.0 % of the nurses have stated that they have received no training in that field. Based on defining characteristics of various nursing diagnoses, the nurses' correct answers as to identification of such diagnoses have the following rates: diagnosis of constipation and diagnosis of diarrhoea, 61.0 %; diagnosis of disturbed personal identity, 1.0%. It has been found out that there was a significant difference between the nurses' educational levels and their correct answers regarding the identification of nursing diagnoses. On the other hand, it has been determined that there was no significant difference between nurses' term of employment and their correct answers as to nursing diagnoses.

**Conclusion:** As a result of the research conducted, it has been determined that the nurses' knowledgeability of nursing diagnoses is not at the desired level.

**Key words:** Nursing, nursing diagnoses, patient care

**Introduction**

Nursing diagnoses serve the purpose of solving the patient's problems by the help of nursing knowledge and skills, enhancing the quality of patient care, and ensuring the development of a standardized, common language for nursing professionals. To this end, the term "Nursing Diagnosis" that represents the first step of nursing process has been introduced into the relevant literature in 1950s. (Atalay, et al., 1997; Birol 2005).

In 1990, NANDA has defined the term "Nursing Diagnosis" -which definition is currently effective- as follows: "nursing diagnosis is a clinical judgment by the nurse, about individual,

family, or community responses to actual or potential health problems/life processes". A nursing diagnosis provides the basis for selection of nursing interventions in terms of what to do or what not to do in accordance with the nurse's knowledge and skills. Therefore, in solving the problem, identification of the correct diagnosis is of utmost importance. Each diagnosis appearing in the list that has been designated by NANDA consists of three elements. Namely;

1) Name of diagnosis(problem): Defines the individual's actual / potential health condition.

2) Etiological factors: Pathophysiological, therapeutic, developmental or situational factors that cause the problem to develop.

3) Defining characteristics: A cluster of manifestations, signs and symptoms observed in the individual along with the problem. (Ay 2008; Birol 2005; Acaroglu 2008).

Nursing diagnoses are generally classified into four groups, i.e. Actual / Current Nursing Diagnosis, Risk Nursing Diagnosis, Well-Being / Wellness Nursing Diagnosis, and Health Promotion Nursing Diagnosis.

According to pertinent articles of the Nursing Regulation, which articles include provisions regarding the duties, powers and responsibilities of nurses, the nurses should assume the following roles with a view to ensuring that the health of individuals, families, communities and the society as a whole is protected and promoted, that such individuals, families, and communities are healed/cured in the case of a disease, and that their quality of life is enhanced: providing nursing care services; organising and implementing the medical diagnosis and treatment plan that has been prepared by the physician; creating a safe and healthy environment; involving in training, counselling, research, management, and quality improvement activities; making cooperative and collaborative efforts; and establishing necessary communications. Nurses shall identify in every environment the health-related needs of individuals, families, and communities, which needs may be met through nursing interventions, and shall, pursuant to such needs that have been identified during the nursing diagnosis process, plan evidence-based actions with regard to the nursing care, and then implement, evaluate and supervise such nursing care service. (T.R.Official Gazette 2010).

The object of this study is to determine how knowledgeable the nurses are in respect of nursing diagnoses defining characteristics of which have been given.

### Material and Method

**Type of Research:** This research has been undertaken on descriptive basis with a view to determining the nurses' level of cognizance and knowledgeability in regard to the nursing diagnoses that are frequently encountered in the case of individuals who need care.

**Research Population and Sampling:** Research population consisted of 650 nurses who have been working at Erzurum Ataturk University

Research Hospital. No sampling calculations have been made. The study in question has been conducted in October-November 2013 with the participation of 110 nurses who have been working at Erzurum Ataturk University Research Hospital and who agreed to take part in the research. However, as 10 nurses failed to answer the questionnaire duly, the study has been completed with the participation of 100 nurses in total.

**Data Collection Form:** Research data has been collected by means of a questionnaire that was prepared by the researcher and which consisted of 16 questions involving demographic characteristics of the nurses as well as by use of a second form that included questions about etiological factors of 25 nursing diagnoses which were considered to have been encountered most frequently by the nurses.

**Application of the Questionnaire:** Following the making of necessary explanations to the nurses, the questionnaires have been filled out by way of face-to-face interviews.

**Data Evaluation:** Statistical analyses of the data have been conducted by use of SPSS 11.0 statistical software package. The data has been evaluated via percentile and chi-square tests.

**Ethical Principles:** A written permission has been obtained from the Ataturk University Research Hospital before starting the research. The study in question has been conducted with the participation of nurses who agreed to take part in the research.

**Limitation and Generalizability of the Research:** The research has been limited to the nurses who have been working at the Ataturk University Research Hospital. Conclusions derived from the research may be generalized to nurses who had been working at the said institution as of the specified date.

A 81.0 % of the nurses have stated that nursing diagnoses must be used in patient care. Similarly, the rate of nurses who have suggested that trainings provided in the field of nursing diagnoses are insufficient is also 81.0 %. On the other hand, 33.0 % of the nurses have stated that they have received no training in that field. Of the nurses who have specified that they have received training in the field of nursing diagnoses (62.0 %), 2.0 % have stated that they have received such training at the institution where

they have been working whereas 96.0 % have said that they have received subject training during their formal nursing education. 85.0 % of the nurses have suggested that adequacy of patient care is dependent on the number of nurses working at the clinics. Nurses who have stated that the trainings provided in the field of nursing diagnoses are inadequate have made the following proposals in that regard: in-service, in-house and on-the-job trainings should be provided at the institutions concerned, 25.0 %; relevant seminars-conferences should be organised at certain intervals, 9.0 %; nursing diagnoses should be used at the clinical departments (forms and booklets related to nursing diagnoses should be available), 9.0 %; the level and the extent of pertinent trainings provided at nursing schools should be more sufficient, 12.0 %. On the other hand, 55.0 % of the subject nurses have not made any proposals.

Of the nurses who have suggested that nursing care given is directly proportional to the number of nurses working, 45.0 % have pointed out that the number of nurses falls very short as compared to the number of patients wherefore the nurses are unable to allocate a sufficient amount of time for patient care services, and that, hence, the number of nurses should be increased.

Table 3 includes a percentage distribution of the nurses' answers respecting the nursing diagnoses whose defining characteristics have been given. The nurses' correct answers as to the identification of such diagnoses have the following rates: diagnosis of constipation and diagnosis of diarrhoea, 61.0 %; diagnosis of anxiety, 44.0 %; diagnosis of hyperthermia, 38.0 %; diagnosis of insomnia, 32.0 %; diagnosis of acute pain and diagnosis of deficient fluid volume, 26.0 %; diagnosis of risk for infection and diagnosis of risk for bleeding, 25.0 %; diagnosis of impaired skin integrity, 24.0 %; diagnosis of activity intolerance and diagnosis of deficient knowledge, 22.0 %; diagnosis of impaired oral mucous membrane, 21.0 %; diagnosis of self-care deficit syndrome, 18.0 %; diagnosis of impaired communication, 15.0 %; diagnosis of ineffective role performance, 12.0 %; diagnosis of risk for trauma, 10.0 %; diagnosis of fatigue, 8.0 %; diagnosis of impaired swallowing and diagnosis of impaired spontaneous ventilation, 5.0 %; diagnosis of risk

for self-mutilation and diagnosis of deficient diversional activity, 4.0 %; diagnosis of risk for aspiration and diagnosis of grieving, 3.0 %; diagnosis of disturbed personal identity, 1.0 %.

### Discussion

When we examine the percentage distribution of the nurses' answers regarding the nursing diagnoses defining characteristics of which have been given, it is observed that most of the correct answers involve diagnoses such as constipation, diarrhoea, hyperthermia, insomnia, pain, etc. that exhibit more perceptible signs or symptoms and which may be verbally expressed by the patients themselves. On the other hand, in the case of nursing diagnoses such as impaired communication, ineffective role performance, risk for self-mutilation, disturbed personal identity, deficient diversional activity, etc. whose aetiologies involve more abstract concepts, answers given by the nurses are mostly wrong.

It has been determined that there was a significant difference between nurses' educational levels and their answers regarding the identification of nursing diagnoses ( $p < 0.05$ ). Nurses holding a bachelor's degree or a master's degree have given correct answers at a higher rate. We hold the opinion that such circumstance stems from the fact that cited nurses have received relevant training during their formal education and developed an understanding in respect of the subject-matter.

On the other hand, the difference between nurses' term of employment and their answers concerning the identification of nursing diagnoses is insignificant, saving 8 diagnoses. In particular, the rate of correct answers in the case of nurses who have a professional experience of 0-5 years is much lower. This situation may have resulted from inexperience of such nurses and also from the fact that many of those inexperienced nurses are graduates of vocational high schools of health.

However, the foregoing finding which is related to the nurses' term of employment has generally not affected the number of correct answers given. Just like the inexperienced ones, nurses who have been working for longer terms have mostly failed to give correct answers as well.

**Table 1 : Distribution of individual and occupational characteristics of nurses**

Individual and occupational characteristics		Number	(%)
Gender	female	79	79.0
	male	21	21.0
Age	18-25 years	36	36.0
	26-35 years	48	48.0
	36-45 years	13	13.0
	45 years and over	3	3.0
marital status	married	45	45.0
	single	55	55.0
education level	Health High School	32	32.0
	vocational high school	16	16.0
	university graduate	46	46.0
	post graduate education	6	6.0
Year of study at the institution	0-5 year	47	47.0
	6-10 year	34	34.0
	10-15 year	16	16.0
	16 year and over	3	3.0
Unit you work with	Internal medicine clinics	32	31.0
	Surgical clinics	18	18.0
	Special units (dialysis, emergency etc.)	50	50.0
TOTAL		100	100.0

**Table 2: Distribution of the nurses' opinions about nursing diagnoses**

		Number	Percentage (%)
Is it necessary to use nursing diagnoses in patient care?	Yes	81	81.0
	No	15	15.0
	I am indecisive	4	4.0
Which one is difficult for you, identifying nursing diagnoses or implementing appropriate nursing intervention?	Identifying diagnoses	41	41.0
	Implementing appropriate nursing intervention	47	47.0
	Both	12	12.0
Have you received any training with respect to nursing diagnoses?	Yes	62	62.0
	No	33	33.0
	I don't remember	5	5.0
Where/when did you receive the training regarding nursing diagnoses?	Hospital I've been working at	2	2.0
	During nursing education	96	96.0
	I don't remember	2	2.0
Do you think trainings provided in the field of nursing diagnoses are adequate?	Yes	11	11.0
	No	81	81.0
	I am indecisive	8	8.0
Does the number of working nurses has any relevance to the nursing care given?	Yes	85	85.0
	No	8	8.0
	I am indecisive	7	7.0

**Table 3: Distribution of nursing diagnoses identified by the nurses on the basis of defining characteristics given**

Diagnosis	Correct		Wrong		Unanswered		Total	
	No.	%	No.	%	No.	%	No.	%
Constipation	61	61.0	0	0.0	39	39.0	100	100.0
Diarrhoea	61	61.0	0	0.0	39	39.0	100	100.0
Anxiety	44	44.0	11	11.0	45	45.0	100	100.0
Hyperthermia	38	38.0	5	5.0	57	57.0	100	100.0
Insomnia	32	32.0	8	8.0	60	60.0	100	100.0
Acute pain	26	26.0	3	3.0	71	71.0	100	100.0
Deficient fluid volume	26	26.0	8	8.0	66	66.0	100	100.0
Risk for infection	25	25.0	9	9.0	66	66.0	100	100.0
Risk for bleeding	25	25.0	3	3.0	72	72.0	100	100.0
Impaired skin integrity	24	24.0	11	11.0	65	65.0	100	100.0
Activity intolerance	22	22.0	13	13.0	65	65.0	100	100.0
Deficient knowledge	22	22.0	7	7.0	71	71.0	100	100.0
Impaired oral mucous membrane	21	21.0	9	9.0	70	70.0	100	100.0
Self-care deficit syndrome	18	18.0	10	10.0	72	72.0	100	100.0
Impaired communication	15	15.0	11	11.0	74	74.0	100	100.0
Ineffective role performance	12	12.0	7	7.0	81	81.0	100	100.0
Risk for trauma	10	10.0	16	16.0	74	74.0	100	100.0
Fatigue	8	8.0	15	15.0	77	77.0	100	100.0
Impaired swallowing	5	5.0	18	18.0	77	77.0	100	100.0
Impaired spontaneous Ventilation	5	5.0	16	16.0	79	79.0	100	100.0
Risk for self-mutilation	4	4.0	23	23.0	73	73.0	100	100.0
Deficient diversional activity	4	4.0	22	22.0	74	74.0	100	100.0
Risk for aspiration	3	3.0	11	11.0	86	86.0	100	100.0
Grieving	3	3.0	18	18.0	79	79.0	100	100.0
Disturbed personal identity	1	1.0	7	7.0	92	92.0	100	100.0

## Conclusion and Recommendations

Majority of the nurses have stated that they had obtained relevant knowledge about the subject-matter during their formal education, that the training provided in respect of nursing diagnoses was inadequate, and that in-service, in-house and on-the-job trainings should also be provided at the institutions where they have been working. Nurses have further stated that nursing diagnoses should be implemented at the clinics, that the amount of time to be allocated for the relevant purpose at the nursing schools should be much higher, and that they have difficulty in identifying nursing diagnoses and implementing appropriate nursing interventions.

Nurses have also pointed out that nursing care given is directly proportional to the number of nurses working, that the number of nurses falls very short as compared to the number of patients wherefore the nurses are unable to allocate a sufficient amount of time for patient care services, and that, hence, the number of nurses should be increased.

It has been found out that there was a significant difference between the nurses' educational levels and their correct answers regarding the identification of nursing diagnoses. On the other hand, it has been determined that mostly there was no significant difference between the nurses' term of employment and their correct answers as to nursing diagnoses.

In consequence of the research undertaken, it has been determined that nurses' cognizance and knowledgeability of nursing diagnoses are not at the desired level.

**As a result of the study conducted, it is recommended that:**

- ✓ Systems that would enable all nurses use nursing diagnoses be developed at the health institutions,
- ✓ In-service, in-house and on-the-job trainings in the field of nursing diagnoses be organised at the hospitals, and
- ✓ Nursing diagnoses be taught in a more comprehensive and practical/applied manner.

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