

Original Article

Determination of Nursing Students' Perception States in Nursing Diagnosis

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Abstract

Background: Teaching students nursing diagnoses with all dimensions increases the quality of patient care by contributing positively to patient care practices.

Aim: This study was conducted to determine nursing students' nursing diagnosis perception states.

Methods: Being a descriptive study, it was conducted with 224 nursing students. The data of the study were collected through descriptive features form and perceptions of nursing diagnosis survey. Percentage calculations, mean measures, Kruskal Wallis Test and Mann-Whitney U Test were employed in data analysis.

Results: It was determined that the students got 2.38 ± 0.40 out of 5 points from Perceptions of Nursing Diagnosis Survey and that they treated nursing diagnoses in a positive way. Regarding the students' class attitudes, the usefulness of nursing process for professional development, using nursing diagnosis in clinical practice, ability to determine nursing diagnosis, the necessity of nursing diagnosis, personally identifiable nursing diagnosis and increasing patient's life quality through nursing diagnosis, there was a statistically meaningful significance between scores of Perceptions of Nursing Diagnosis Survey ($p < 0.05$).

Conclusion: The result of this study showed that the students treated their perception situations of nursing diagnoses in a positive way.

Key Words: Nursing, nursing student, nursing diagnosis, perception

Introduction

Nursing process, forming the basis of nursing practices, is a systematic method employed in planning and providing patient-specific care. Meanwhile, nursing process is a way of critical thinking focusing on finding solutions to patient problems (Black, 2014; Craven, Hirnle & Jensen, 2015). Nursing process consists of five steps; identification, diagnosis, planning, application and evaluation (Berman, Snyder & Frandsen, 2016). The second step in nursing process, diagnosis, guides the identification of nursing initiatives on what to do against an individual's health problem (Lunney, 2010). Nursing

diagnosis stands as the basis for the planning, application and evaluation of nursing care (Axelsson, Bjorvell, Mattiasson & Randers, 2006; Lunney, 2010). The NANDA-I nursing diagnosis amongst nursing classification systems is defined as the clinical decision on the answers given by individual, family or community to current or potential health problems (Herdman & Kamitsuru, 2014). It is crucial to determine correct nursing diagnosis in the resolution of an individual's health problem. The use of nursing diagnosis improves communication among nurses, provides a common language, supports the continuity of care and makes care visible (Craven et al., 2015; Potter, Perry, Stockert &

Hall, 2013; Muller-Staub, Needham, Odenbreit, Lavin & vanAchterberg, 2008).

Nursing process is one of the indispensable components of nursing education. Competence for nursing diagnosis requires education and experience (Collins, 2013; Erdemir & Karaca, 2016; Karaca & Aslan, 2018). Studies have indicated that nurses should be better educated about nursing diagnoses, signs, symptoms and aetiology (Muller-Staub et al., 2008; Lunney 2003). Student nurses, who will be working as nurses in the future, learn to provide individualized care in clinical practice, not based on routine though. The students who gain the habit of using nursing diagnoses during the education period continue to use this diagnosing habit in their professional life. Besides, the use of nursing diagnoses is significant for nursing students to understand nursing roles (Collins, 2013; Erdemir & Karaca, 2016; Karaca & Aslan, 2018).

It is stated that the use of nursing education by students is a positive contribution to care practices (Paans, Nieweg, Schans & Sermeus, 2011). Studies conducted on nurses have illustrated that positive or negative perceptions of nursing diagnoses influence the employment and application of nursing diagnosis (Halverson et al., 2011; Frisch & Kelley, 2002). Positive perception of nursing diagnoses provides a positive impact on the identification of patient problems and planning of patient care, thereby increases the quality of patient care (Halverson et al., 2011; Frisch & Kelley, 2002). The student nurses, trained as health professionals to be in the future are supposed to learn nursing diagnoses in all dimensions (Karaca & Aslan, 2018). Hence, teaching the use of nursing diagnoses to students will increase the quality of nursing education as well as the quality of nursing care (Collins, 2013; Erdemir & Karaca, 2016; Karaca & Aslan, 2018). Therefore, this study was carried out to determine nursing students' perceptions of nursing diagnoses.

Methods

Study Design and Sample

The study was conducted as a descriptive study so that nursing students' perceptions of nursing diagnoses could be determined. The population of the study consists of all students enrolled in the 2nd, 3rd and 4th grades of the Nursing Department at the Faculty of Health Sciences of

a university during the spring semester of 2015-2016. The sample of the study includes 224 students who agreed to participate in the research. Since the first-year students did not participate in clinical practice in nursing process, they were not included in the sample of the study.

Data Collection Tools

In the study, data were collected through descriptive features form and Perceptions of Nursing Diagnosis Survey. Descriptive features form was prepared by the researchers following literature review (Halverson et al., 2011; Korhan, Hakverdioglu-Yont, Ak & Erdemir, 2013; Muller-Staub et al., 2008).

Validity and reliability in Turkish of Perceptions of Nursing Diagnosis Survey, which was developed Olsen, Forst and Orth in 1991, was performed by Akin-Korhan et al. in 2013. The perceptions of nursing diagnosis survey comprises 26 items and 4 subscales. The scale consists of four sub-domains (Delineation and Promotion of Nursing Profession, Clear Representation of Patient Situation, Ease to Use, Conceptual Orientation) in which the ease of nursing diagnoses use and the perception of its benefits for the profession and care process are evaluated. As the scale is five-point Likert type, the scale score is determined by calculating a score from 5 as *I completely agree* to 1 as *I completely disagree* and dividing it by the number of items. Thus, the total score of the scale ranges from 1 to 5. The low score gained on the scale indicates that nursing diagnoses are perceived in a positive way. The Cronbach alpha value of the scale is 0.94. In this study, the Cronbach alpha value was set as 0.81.

Analysis of the Data

The data obtained from the study were evaluated using SPSS 18.0 (Statistical Package for Social Science) statistical package program. Percentage calculations, mean measures (minimum, maximum), Kruskal Wallis Test and Mann-Whitney U Test were employed in data analysis.

Results

Table 1, in which demographic information of the students are provided, illustrates that 84.4% of the students were female and 42.9% were in 3rd grade. Of the students, 76.3% said they loved nursing profession, 24.1% were able to carry out nursing diagnosis and 59.8% stated that nursing

diagnoses were necessary. 95.5% of the participants stated to be using nursing diagnosis in clinical practice, 46.4% stated to make personally identifiable nursing diagnosis and 75.0% stated that using nursing diagnosis increased the quality of patient care. Average scores of Perceptions of Nursing Diagnosis Survey and subscales were given in Table 2. The mean score of students' perception of nursing diagnoses was $2,38 \pm 0,40$ while the mean scores of the subscales were noted as identification and presentation of nursing profession was $1,85 \pm 0,64$, describing the state of patient was $2,64 \pm 0,50$, ease of use $2,74 \pm 0,49$ and conceptual direction $2,59 \pm 0,53$.

In Table 3, mean distribution of total scores and subscales of perception of nursing diagnoses according to certain characteristics of the students. Regarding the students' class attitudes, the usefulness of nursing process for professional development, using nursing diagnosis in clinical practice, ability to determine nursing diagnosis, the necessity of nursing diagnosis, personally

identifiable nursing diagnosis and increasing patient's life quality through nursing diagnosis, there was a statistically meaningful significance between scores of Perceptions of Nursing Diagnosis Survey ($p < 0.05$).

Likewise, with regard to the students' class attitudes, state of emotion on nursing, the usefulness of nursing process for professional development, using nursing diagnosis in clinical practice, ability to determine nursing diagnosis, the necessity of nursing diagnosis, personally identifiable nursing diagnosis and increasing patient's life quality through nursing diagnosis, a statistically meaningful significance was found between subscale scores of identification and presentation of nursing profession ($p < 0.05$). Furthermore, according to the students' class attitudes, the usefulness of nursing process for professional development and personally identifiable nursing diagnosis, a statistically meaningful significance was gained between subscale scores of describing the state of patient accurately ($p < 0.05$).

Table 1. Demographic data of the students

Demographic data	n	%
Gender		
Female	189	84.4
Male	35	15.6
Grade		
2 nd Grade	72	32.1
3 rd Grade	96	42.9
4 th Grade	56	25.0
State of emotion on nursing		
I love my profession	171	76.3
I do not love my profession	53	23.7
Level of nursing diagnosis ability		
Yes	54	24.1
No	33	14.7
Partly	137	61.2
Necessity of nursing diagnosis		
Yes	134	59.8
No	20	8.9
Partly	70	31.3
Use of nursing diagnosis in clinical application		
Yes	214	95.5
No	10	4.5
Personally identifiable nursing diagnosis		
Yes	104	46.4
No	9	4.0
Partly	111	49.6
Increasing patient's life quality through nursing diagnosis		
Yes	168	75.0
No	16	7.1
Partly	40	17.9

Table 2. Average Scores of Perceptions of Nursing Diagnosis Survey and Subscales

Subscales scores	$\bar{X}\pm SD$	Min	Max
Delineation and promotion of nursing profession	1.85±0.64	1.00	4.44
Clear representation of patient situation	2.64±0.50	1.00	4.29
Ease to use	2.74±0.49	1.00	4.33
Conceptual orientation	2.59±0.53	1.00	4.25
Total survey score	2.38±0.40	1.00	4.08

Table 3. Mean distribution of total scores and subscales of perception of nursing diagnoses according to certain characteristics of the students

Descriptive Features	Perceptions of Nursing Diagnosis Survey and Subscales				
	Identification and presentation of nursing profession	Describing the state of patient accurately	Ease of use	Conceptual direction	Perceptions of Nursing Diagnosis Survey
Grade	$\bar{X}\pm SD$	$\bar{X}\pm SD$	$\bar{X}\pm SD$	$\bar{X}\pm SD$	$\bar{X}\pm SD$
2 nd Grade	1.97±0.65	2.61±0.52	2.67±0.59	2.55±0.58	2.40±0.47
3 rd Grade	1.84±0.67	2.77±0.38	2.79±0.38	2.69±0.51	2.44±0.36
4 th Grade	1.71±0.55	2.47±0.41	2.75±0.50	2.50±0.48	2.28±0.33
Statistical Evaluation	X²=6.463 p=0.039	X²=11.118 p=0.004	X²=2.463 p=0.292	X²=4.530 p=0.104	X²=6.492 p=0.039
State of emotion on nursing					
I love my profession	1.79±0.62	2.65±0.47	2.79±0.47	2.61±0.51	2.38±0.36
I do not love my profession	2.03±0.70	2.61±0.57	2.60±0.53	2.55±0.60	2.40±0.49
Statistical Evaluation	Z=-2.315 p=0.021	Z=-.622 p=0.534	Z=-3.127 p=0.002	Z=-0.524 p=0.601	Z=-0.290 p=0.772
State of Usefulness of Nursing process on Professional development					
Yes	1.78±0.59	2.60±0.47	2.73±0.48	2.57±0.53	2.34±0.36
No	2.13±0.48	2.81±0.55	2.77±0.52	2.68±0.53	2.54±0.48
Statistical Evaluation	Z=-3.059 p=0.002	Z=-2.941 p=0.003	Z=-0.192 p=0.847	Z=-1.173 p=0.241	Z=-3.165 p=0.002
Use of nursing diagnosis in clinical application					
Yes	1.83±0.62	2.64±0.50	2.73±0.48	2.59±0.53	2.37±0.39
No	2.36±0.87	2.64±0.49	2.93±0.53	2.80±0.48	2.63±0.44
Statistical Evaluation	Z=-1.986 p=0.047	Z=-0.324 p=0.746	Z=-0.902 p=0.367	Z=-1.111 p=0.267	Z=-2.051 p=0.040
Level of nursing diagnosis ability					
Yes	1.76±0.71	2.53±0.63	2.61±0.62	2.47±0.65	2.27±0.51
No	2.19±0.66	2.80±0.58	2.74±0.59	2.65±0.58	2.55±0.48
Partially	1.81±0.59	2.65±0.40	2.79±0.38	2.63±0.46	2.39±0.30
Statistical Evaluation	X²=14.115 p=0.001	X²=6.008 p=0.050	X²=4.760 p=0.093	X²=2.889 p=0.236	X²=10.347 p=0.006
Necessity of nursing diagnosis					
Yes	1.73±0.61	2.58±0.52	2.71±0.52	2.56±0.57	2.31±0.41
No	2.31±0.81	2.75±0.56	2.74±0.47	2.56±0.55	2.57±0.48
Partially	1.96±0.58	2.73±0.42	2.80±0.41	2.66±0.44	2.47±0.31
Statistical Evaluation	X²=16.364 p=0.000	X²=5.086 p=0.079	X²=0.578 p=0.749	X²=1.085 p=0.581	X²=12.657 p=0.002
Personally identifiable nursing diagnosis					
Yes	1.75±0.67	2.56±0.51	2.71±0.54	2.50±0.57	2.31±0.42
No	2.13±0.97	2.85±0.47	2.98±0.52	2.77±0.64	2.62±0.54
Partially	1.92±0.57	2.71±0.48	2.75±0.42	2.67±0.47	2.44±0.34
Statistical Evaluation	X²=7.825 p=0.020	X²=6.745 p=0.034	X²=2.040 p=0.361	X²=4.367 p=0.113	X²=11.504 p=0.003
Increasing patient's life quality through nursing diagnosis					
Yes	1.73±0.57	2.61±0.48	2.74±0.50	2.59±0.53	2.33±0.36
No	2.59±1.00	2.89±0.72	2.82±0.62	2.70±0.63	2.74±0.66
Partially	2.06±0.53	2.70±0.42	2.73±0.37	2.57±0.49	2.46±0.30
Statistical Evaluation	X²=12.320 p=0.015	X²=8.540 p=0.074	X²=0.474 p=0.976	X²=3.308 p=0.508	X²=10.892 p=0.028

Discussion

Nursing diagnosis is an ability helping nursing students to think critically which promotes clinical decisions. Nursing diagnoses are employed all around the world in order to create a common and standard language in nursing care (Lunney, 2003). The findings of the study conducted to determine the nursing students' perceptions of nursing diagnoses are dealt with below.

It was determined that the students, participating in the study, received a 2.38 ± 0.40 out of 5 from Perceptions of Nursing Diagnosis Survey and that they perceived nursing diagnoses positively (Table 2). In the study conducted by Karaca and Aslan (2018), nursing students were found to perceive nursing diagnoses positively as they got 2.44 ± 0.44 points from Perceptions of Nursing Diagnosis Survey. Likewise, in the research carried out with 110 nursing students by El-Rahman, Kalaldehy and Malak (2017), the perceptions of students about nursing diagnoses were determined to be positive. Compared with the results of the study, it was determined that students perceive nursing diagnoses more positively in this research. Meanwhile, regarding the other finding of the study, the ones who find the nursing process useful for professional development and who use nursing diagnosis in clinical practice may have been influenced to perceive nursing diagnoses positively (Table 3). This result is of importance indicating that nursing students should be taught nursing diagnoses in their undergraduate education. Positive perception of students' use of nursing diagnoses influences determination of patients' illness and planning of patient care in a positive way, whereby increasing the quality of patient care. Moreover, student nurses' positive perception of nursing diagnoses were stated to have an impact on the use and application of nursing diagnosis (Halverson et al., 2011; Frisch & Kelley, 2002). Training in accordance with nursing process is provided in clinical practice at nursing schools providing undergraduate education in Turkey (Yont, Korhan, Erdemir & Muller-Staub 2014). In the literature, it is stated that more attention should be paid to nursing diagnoses in undergraduate programs so that nursing diagnosis could be developed (Lunney, 2003; Muller-Staub et al., 2008). Having a look at the literature, the education provided through nursing diagnosis were found to be influential in

improving attitudes towards nursing diagnosis (Collins, 2013; Halverson et al., 2011).

In this study, students' perceptions were identified to be more positive (1.85 ± 0.64) in the subscale of Perceptions of Nursing Diagnosis Survey, which is identification and presentation of nursing profession but to be more negative (2.74 ± 0.49) in the subscale ease of use (Table 2). In the studies conducted in this subject, it was found that nurses and student nurses perceived the subscale identification and presentation of nursing profession more positively (Karaca & Aslan, 2018; Akin-Korhan et al., 2013). Therefore, the findings of this study show similarities with the literature. The reason why students perceive identification and presentation of nursing profession more positively is likely to be due to the fact that they love their profession, that they find nursing diagnoses useful for professional development, and that they use nursing diagnosis in clinical practice (Table 3).

That the students perceived the subscale ease of use negatively is an undesirable finding. Although students have learned the importance of nursing diagnoses during their training, they were seen not to use them in practice in general. The most significant reason might be that patient care using patient diagnoses is not provided in the institution where they are working (Halverson et al., 2011; Yont et al., 2012; Korhan, Yont, Erdemir, & Muller-Staub, 2014). By the way, it is stated in the literature that nursing diagnoses are taught in nursing schools but not applied in clinical settings (Collins, 2013; Karaca & Aslan, 2018).

In this study, 4th grade students were determined to perceive more positively Perceptions of Nursing Diagnosis Survey (Table 3). Palese, Silvestre, Valoppi, & Tomietto (2009) found that nurses who would graduate had greater confidence in using NANDA-I nursing diagnoses. However, in the study conducted by El-Rahman et al. (2017), it was stated that there was no meaningful significance between students' perception of nursing diagnoses by academic year. In this study, the reason why 4th grade students perceived nursing diagnoses more positively than other classes could be the result of having more experience in using nursing diagnoses during their nursing education.

In this research according to Perceptions of Nursing Diagnosis Survey, the students were identified in a meaningful significance to have a

positive perception of level of nursing diagnosis ability, necessity of nursing diagnosis, personally identifiable nursing diagnosis and increasing patient's life quality through nursing diagnosis (Table 3). The results of this study stand as a positive finding indicating that students are aware of how important nursing diagnoses are during patient care. Besides, this finding may also be important that nursing students can use nursing diagnosis in their future careers.

In a study conducted by Sendir et al. (2009) in which final year students' knowledge and opinions on nursing process were investigated, 84.4% of the students stated that the quality of patient care was increased by providing evidence related to patient care. In the qualitative study conducted by Axelson et al. (2006), it was reported that nurses' use of nursing processes provided holistic care and increased professional knowledge. In addition, the studies conducted with nursing students indicated that majority of the students accepted the importance of nursing diagnoses and wanted to use them in clinics (Yont et al., 2009; Sendir et al., 2009; El-Rahman et al., 2017).

Conclusion

This study indicates that nursing students have a positive perception of nursing diagnoses. Nursing students' perceptions of nursing diagnoses were influenced in a positive way by such variables as class, finding nursing process useful for professional development, use of nursing diagnosis in clinical application, level of nursing diagnosis ability, necessity of nursing diagnosis, personally identifiable nursing diagnosis, passion for profession and increasing patient's life quality through nursing diagnosis. Considering the results of the study, it can be suggested that more attention be paid to nursing diagnoses within nursing education curricula and that various teaching strategies be employed during undergraduate education. Teaching nursing diagnoses to students increases the quality of patient care by contributing positively to patient care practices.

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