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The current state of, and outstanding issues relating to, nursing diagnosis, as taught in basic nursing education in Japan

—Based on a questionnaire study implemented by nursing universities—

Chiharu Ito, Harumi Ejiri

Department of Nursing College of Life and Health Sciences, Chubu University, Aichi, Japan
Email: cito@isc.chubu.ac.jp

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ABSTRACT

This report attempts to ascertain the current state of, and outstanding issues relating to, nursing diagnosis, as taught in nursing education in Japan, and to obtain basic resources that will allow the improvement of said nursing diagnosis training. A self-completed, anonymous survey was carried out in regard to teaching staff responsible for classes in "nursing process" or "nursing diagnosis" at 183 university institutions involved in nursing education nationwide. Responses were received from 82 people, which clarified the following three points. 1) Of the 63 universities teaching nursing process as an independent subject, approximately 62% included nursing diagnosis. 2) A diverse range of educational materials were used in nursing diagnosis training, including NANDA-I nursing diagnosis. 3) In implementing nursing process using nursing diagnosis, issues raised included the following: the limitations of education "on paper", using theoretical patients, insufficient skills among teaching staff, the difficulty of realizing practical training in a clinical setting, and the tendency to try to make a simple diagnosis fit the circumstances. In the future, this study suggests that it may be important to create a set of guidelines guaranteeing a minimum level of educational content in relation to nursing diagnosis, which must be learned before graduation.

Keywords: Nursing Education; Nursing Diagnosis; Questionnaire Survey

1. INTRODUCTION

Since the early 1990s, nursing diagnosis has become an area of interest in Japan, along with the move to establish nursing as a specialist profession, with the practice of nursing diagnosis, as developed in the USA, being introduced. Furthermore, in 2001, the Ministry of Health, Labour and Welfare issued plans for a four-stage system of medical treatment based on a system of electronic medical records, known as the "Grand Design for Healthcare and Medical Informatics". As one aspect of these measures, hospitals with 200 or more beds are being encouraged to introduce electronic medical records with the objective of efficiently utilizing medical information. For this reason, the concept of nursing diagnosis has come to be used as one method of organizing entries conventionally made to nursing records in such a way as to facilitate their utilization as data, and the practice has begun to roll out widely within the clinical workplace.

It has been pointed out [1-3], however, that while efforts have been made to ensure the label of "nursing diagnosis" developed in the USA which is "applied", "selected" or "extracted", it is unclear whether nursing diagnosis itself has been sufficiently understood. For this reason, it is vital that the requisite training is given during nursing education, allowing the acquisition of skills to appropriately respond to this situation. At present, however, there are questions relating to exactly how much content is being taught during training for nursing diagnosis within Japanese nursing education.

Given the situation described above, the authors considered that there may be a need to create an educational program, comprising educational content and methods, to improve nursing diagnosis training, and to link its practice to the clinical workplace. As the first step in this process, we wished to clarify the current state of, and outstanding issues relating to, nursing diagnosis.

2. OBJECTIVES OF RESEARCH

To ascertain the current state of, and outstanding issues relating to, nursing diagnosis, as taught in nursing education in Japan, and to obtain basic resources that will allow the improvement of said nursing diagnosis training.

3. RESEARCH METHODS

3.1. Research Design

Quantitative, descriptive research implemented using an anonymous, self-completed questionnaire.

3.2. Target and Survey Period

The survey period was between December and January 2010. The target of the survey was teaching staff responsible for classes in "nursing process" or "nursing diagnosis" at the 183 university institutions involved in nursing education nationwide, who were asked to self-complete an anonymous survey.

3.3. Survey Method and Contents

1) The subjects were sent a survey request envelope, which contained one set of documents comprising a letter explaining the objectives and methods of the survey and a request for participation, an anonymous survey document, and a return envelope. The completed survey document guaranteed anonymity by being placed in the return envelope and mailed back to the project. Subjects were asked to respond within two weeks. The anonymous, self-completed questionnaire document surveyed the following subjects: Basic attributes.

2) The subjects were asked whether nursing process or nursing diagnosis are taught as independent subjects, and if they are, the number of credits awarded, hours taught, and in what academic year the students take these courses.

3) The subjects were asked whether "nursing diagnosis" is included when implementing nursing process, and the reasons for their response (in a free answer).

4) At universities where nursing diagnosis is included, subjects were asked which theories they used when implementing nursing process, and asked to circle those that apply from a list of examples including NANDA-I nursing diagnosis, Carpenito nursing diagnosis, Gordon's functional health patterns, etc.

At universities where nursing diagnosis is included, subjects were asked about problems relating to the practical implementation of nursing process, with free answers given under the categories of Information collection, Assessment, Diagnosis, Setting outcomes, Planning, and Other.

4. ETHICAL CONSIDERATIONS

Subjects were asked to return their completed questionnaires in the return envelopes provided. The returned questionnaires were mixed with those sent back by other respondents, to ensure that they were processed anonymously with no relation to one another. In this survey, since the authors had a record of the addresses to which questionnaires had been sent in order to manage distribution, no statement of agreement, which may allow individual identification, was obtained, and agreement was assumed by the return of a response. Furthermore, the submission of questionnaires was anonymous, facilitating the protection of privacy, a free decision by subjects as to whether or not to participate in the survey and the inclusion of negative opinions. All procedures carried out as part of this research were subjected to the ethical reviews implemented by the research institution to which the authors belong, and were thereby approved.

5. RESULTS

5.1. Attributes

Eighty-two responses were obtained (response rate 45.3%). The attributes of respondents were as follows: nine were aged 60 or above, 37 were in their 50s, 28 were in their 40s, and 8 were in their 30s. Seventy-nine were female and three males. Thirty-five respondents were professors, 28 associate professors, 17 lecturers and 5 assistant professors.

5.2. The Current State of Nursing Diagnosis within Nursing Education

Of 82 institutions, 63 teach nursing process as an independent subject, while 19 universities did not. The 63 universities in question gave the following responses in regard to the number of credits, number of hours, and academic year to which taught: 35 institutions offered a single credit for the subject, and 24 offered two credits; 38 institutions (the largest number) taught the subject for 30 hours, while the next largest group was the 8 institutions that taught it for 60 hours. In terms of academic year in which taught, 48 schools taught it to second-year students, while 15 taught it to first-year students. Thirty-nine of the 63 universities included "nursing diagnosis" when implementing nursing process, while 21 stated that they do not include it, and three did not respond. Reasons for including nursing diagnosis were "its importance in implementing nursing process", "in order to roll out electronic medical records", and "moving with the times", among others. Reasons for considering it unnecessary included "the process is more important than giving a name to the diagnosis", and "there is a tendency to force a situation to fit a process", etc. In regard to the educational content of institutions including nursing diagnosis (to which multiple answers were possible), 28

institutions stated that they use NANDA-I nursing diagnosis, 11 used Carpenito nursing diagnosis, 26 used Gordon's functional health patterns, and 15 used Henderson's 14 basic needs (see **Table 1**).

5.3. Problems and Issues Relating to Nursing Diagnosis within Nursing Education

The 39 institutions including nursing diagnosis as part of nursing process were asked to freely record areas they feel are problematic in regard to the implementation of nursing process using nursing diagnosis, categorized into the six categories of Information collection, Assessment, Diagnosis, Setting outcomes, Planning, and Other. The results were categorized and are shown in **Table 2**.

5.3.1. Information Collection

Twenty-four responses were given in total, which were organized into seven categories. These were "the limitations of education "on paper", using theoretical patients", "the difficulty of relating theory to practice", "lack of time", "confusion over which framework to use", "problems with curriculum context", "the difficulty of collecting the necessary information", and "the difficulty of organizing information".

5.3.2. Assessment

Twenty-five responses were given in total, which were organized into five categories. These were "problems with the theories and methods used", "confusion over educational methods", "the difficulty of analysis and integration", "the difficulty of justifying assessment", and "lack of basic knowledge".

5.3.3. Diagnosis

Twenty-six responses were given in total, which were organized into 11 categories. These were "confusion over teaching content and methods", "the difficulty of implementing consistent teaching", "lack of skills in teaching staff", "lack of understanding the definition of diagnosis, leading to a tendency to try to make a simple diagnosis fit the circumstances", "the difficulty of relating theory to practice", "the difficulty of prioritizing", etc.

5.3.4. Setting Outcomes

Twenty responses were given in total, which were organized into five categories. These were "confusion over teaching content and methods", "problems with students being taught", "the difficulty of setting objectives", "the difficulty of keeping records", etc.

5.3.5. Planning

Sixteen responses were given in total, which were organized into three categories. These were "problems with teaching methods", "the difficulty of creating specific plans", and "the difficulty of creating individual plans".

Table 1. The state of nursing diagnosis within nursing education.

		No.	%
Course credits n = 63	1 credit	35	55.6
	2 credits	24	38.1
	3 credits	2	3.2
	No response	2	3.2
No. of hours taught n = 63	15 hours	7	11.1
	30 hours	38	60.3
	45 hours	4	6.3
	60 hours	8	12.7
	90 hours	1	1.6
	No response	5	7.9
Academic year in which taught n = 63	First year	15	23.8
	Second year	48	76.2
Nursing diagnosis included? n = 63	Included	39	61.9
	Not included	21	33.3
	No response	3	4.8
Educational content of nursing diagnosis (Multiple response) n = 39	NANDA-I Nursing Diagnosis	28	
	Gordon	26	
	Carpenito	11	
	Henderson	15	
	Roy	9	
	Medium spectrum theory	0	
	NIC	8	
	NOC	8	
	Other	4	

5.3.6. Other

Twenty responses were given in total, which included "problems with the curriculum", "complications in cooperation between teaching staff", "lack of teaching staff and lack of skills", etc.

6. OBSERVATIONS

6.1. The Current State of Nursing Diagnosis within Nursing Education in Japan

Among 82 nursing universities in Japan, 63 institutions are teaching nursing process as an independent subject, and of these 63 institutions, 39 include "nursing diagnosis" when implementing nursing process. Around 48% of all nursing universities have introduced nursing diagnosis. In Europe, almost all countries utilize nursing diagnosis, nursing intervention and nursing outcomes, and in

Table 2. Problems with implementing nursing process using nursing diagnosis.

Total responses		Major category	No. responses	Response rate %	Main examples of response content
Information collection	24	Limitations of education "on paper", using theoretical patients	6	25	Since examples are given on paper, students cannot learn for themselves by obtaining information through observation
					Since examples are given on paper, students cannot make an assessment due to lack of information, or if there is too much information, this exceeds the capacity of the students
					There is a problem in that students do not gain the ability to collect information
					Difficult to collect S information
					Difficult to communicate to or teach students the fact that it is not about S or O only, but rather there is a need to collect related information
		Difficulty of collecting the necessary information	10	41.7	Tendency to mechanically collect all information listed on medical records
					Takes time to acquire the skill to distinguish the information required to understand the patient
					Students collect information from a range of sources, and do not have a good understanding
Assessment	25	Lack of basic knowledge	5	20	Lack of skills in linking form and function/clinical condition
					Cannot assess patient status due to lack of knowledge regarding clinical condition and basic understanding
		Difficulty of justifying assessment	8	32	Tendency to reach easy conclusion with no clear justification
					Difficult to get students to use knowledge or theories in assessment
					Difficult to reach justified assessment based on various different sources of information
					Assessment not based on nursing perspective
		Difficulty of analysis and integration	9	36	Difficult to look at whole picture - physical, psychological and social
					Do not understand connections when integrating as a whole
					Thinking processes are weak
					Takes time
Diagnosis	26	Difficulty of implementing consistent teaching	2	7.7	Since there is no correct answer, students say "it depends on the teacher"
					On paper, there was a difference of opinion regarding the appropriateness of diagnosis
		Difficulty of relating theory to practice	3	11.5	Many students cannot recall theory when engaged in practical training
		Lack of understanding of definition of diagnosis, leading to a tendency to try to make a simple diagnosis fit the circumstances	5	19.2	Students tend to be pulled in one direction or another by labels
					Many students use general or uniform diagnostic names
					Tendency to label things too simply
Outcomes	20	Confusion over teaching content and methods	3	15	Use standard care plans
					NICNOC is referred to, but raised as short-term and long-term objectives
		Difficulty of setting objectives	11	55	Difficult to think in terms of short-term and long-term objectives
					Students do not further understanding, even when the issue of setting achievable outcomes based on the patient status is explained
					Setting results based on speculation is the most difficult thing
					Cannot set outcomes in many cases, due to lack of predictive ability
					Lack of experience and short periods of practical training make it difficult to set appropriate outcomes in many cases
Planning	16	Difficulty of creating individual plans	5	31.3	Difficult to make individual plans
					Tendency to work from standard nursing plans. Students need a lot of teaching to think individually
					Students cannot create nursing plans in line with patient status, and need a lot of teaching
		Difficulty of creating specific plans	9	47.4	Difficult to teach students to make specific plans
					Students cannot imagine the clinical condition or progression, so it is difficult for them to think specifically
					Difficult to relate to clinical condition

North America, almost all nursing education programs teach nursing diagnosis as part of nursing process, which, when considered in the light of the fact that NANDA-I nursing diagnosis is in use [4], indicates a lack of penetration of training relating to nursing diagnosis within nursing education in Japan.

The specific content of nursing education in Japan is in fact left to the individual training institution, and is flexible, allowing each institution to develop its own unique curriculum based on its educational philosophy and policies, with the objective of providing attractive nursing education [5]. Given this situation, in order to train nursing staff who can meet contemporary needs, it is considered necessary to ensure that a minimum level of educational content relating to nursing diagnosis, which includes clinical opinion, is a compulsory part of learning prior to graduation.

6.2. Problems and Issues Relating to Nursing Diagnosis

Based on the results of this survey, it is clear that institutions face a range of problems, including difficulties in ensuring sufficient time within the limited time provided within the educational curriculum; limitations felt in regard to education "on paper", using theoretical patients, in terms of information collection, creating a patient image, implementation and assessment; issues relating to teaching content and methods, including confusion as to what theories should be taught, and a lack of skills among teaching staff and basic knowledge among students. This suggests that the use of training using nursing diagnosis is still at a stage of trial and error within education, and that in the future, it will be necessary to take steps to solve the problems identified in this study in order to work towards more effective nursing diagnosis education. Issues in regard to improving nursing diagnosis training include placing nursing diagnosis in context within nursing education, teaching content and methods that link it to clinical practical training, and a common understanding between teaching staff, and it is considered that the creation of guidelines is an issue requiring consideration in order to achieve these.

7. CONCLUSIONS

This study has clarified the following three points:

1) Of the 63 universities teaching nursing process as an independent subject, approximately 62% include nursing diagnosis.

2) A diverse range of teaching content is used in nursing diagnosis, including NANDA-I nursing diagnosis.

3) In implementing nursing process using nursing diagnosis, issues raised included the following: the limitations of education "on paper", using theoretical patients, insufficient skills among teaching staff, the difficulty of linking to practical training in a clinical setting, and the tendency to try to make a simple diagnosis fit the circumstances.

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