

A Questionnaire Study on the Use of Conceptual Models and Categories in Midwifery Practice

Shimada Keiko Natori Hatsumi* Mimura Akane**
Tabuchi Noriko Kameda Yukie Sekizuka Naomi
Maruyama Ayaka*** Sakai Akemi

ABSTRACT

Because midwifery diagnosis categories are not established yet, midwives are using nursing diagnosis and models. It may be useful to understand potential needs of midwives to investigate the use of nursing diagnosis and models. The purpose of this study was to find out what conceptual models and categories are used by midwives in practice as well as how much motivation they have towards midwifery diagnosis. Informed consent was obtained from 128 midwives, who were asked to fill out a questionnaire which consisted of multiple-choice items. The forms were collected immediately, (effective respondents N=116). As a result, we found that 42.2% of the midwives were utilizing some kinds of nursing conceptual models or categories in their practice. The most frequently used models/categories were those of NANDA (30.6%), Gordon (20.4%) and Roy (18.4%). In terms of the background of the subjects, graduates of 3-year basic nursing programs and junior college midwifery programs made more use of conceptual models and categories than others; likewise, staff nurses did so more than administrators and midwives in the educational field more than midwives in the clinical practice. Those midwives who were currently making use of such models or categories showed a strong motivation level. About a half of the midwives studied were thus providing care while not making any use of conceptual models or categories, which may be a reflection of differences in their educational backgrounds and the contents of their work. Whether their motivational level toward midwifery diagnosis and the use of diagnostic framework are related to independence and professionalism of midwives.

KEY WORDS

Midwifery, Conceptual models of nursing, Nursing diagnosis category, Midwifery diagnosis, Demographic information

INTRODUCTION

It has been noted that the use of conceptual models in nursing practice is vital to maturation of the nursing profession¹⁾. Nursing practice is very much subject to what kinds of conceptual models nurses'

use²⁾. Conceptual models of nursing referred in assessment process to lead appropriate care. In reverse, midwives uses nursing diagnosis categories for description of result that did assessment. Because midwifery diagnosis categories are not established yet,

Department of Maternal Nursing and Midwifery, The School of Health Sciences Faculty of Medicine Kanazawa University
Kanazawa University

* Yamanashi College of Nursing

** Kanazawa University Hospital

*** The Master's course of Health Science, Kanazawa University Graduate School of Medical Science

Table 1. Demographic Information of Subjects

		(n=116)	
	Range	n	%
Age	20~24 yrs	13	11.2
	25~29	42	36.2
	30~34	16	13.8
	35~39	26	22.4
	40~44	9	7.8
	45~49	6	5.2
	50~58	4	3.4
basic nursing education	2-Year Program		
	Nursing School	18	15.5
	Junior College	2	1.7
	3-Year Program		
Midwifery education	Nursing School	70	60.3
	Junior College	26	22.4
Department belonged to	1-Year Program		
	Nursing School	54	46.6
	Junior College	62	53.4
Number of Year Working as Midwife	Mixed ward	67	57.8
	Obstetrics	14	12.1
	Education	31	26.7
	Clinic&Others	4	3.4
Position occupied	1~2	28	24.1
	3~4	17	14.7
	5~10	29	25.0
	11~15	27	23.3
	Over 16	15	12.9
Position occupied	Head Nurse	4	3.4
	Assistant Head Nurse	13	11.2
	Staff Nurse	66	56.9

they use nursing diagnosis and models. Do midwives make use of conceptual models or categories? If they do, what kinds of conceptual models or category do they make use of? Accordingly, we can understand the needs of midwives to explore for use of nursing diagnosis and models. There are not too many studies that have tried to answer these questions. Midwives plan their care based on results of assessment they make. In midwifery diagnosis, assessment results are expressed in the diagnosis, which helps to determine the direction of care to be provided. The purpose of this study was to explore answers to the above questions and measure the motivational level of midwives towards midwifery diagnosis.

Methods

1. Subjects

The subjects of the study were 128 midwives who participated in midwifery training seminars held in Ishikawa, Toyama and Osaka during August 2000. The purpose and procedure of the study were explained to them and their consent for participation was obtained prior to the study.

2. Data Collection and Procedure

The subjects filled out a questionnaire anonymously. The filled out forms were collected immediately. Demographic information the subjects was obtained through the questionnaire form, including

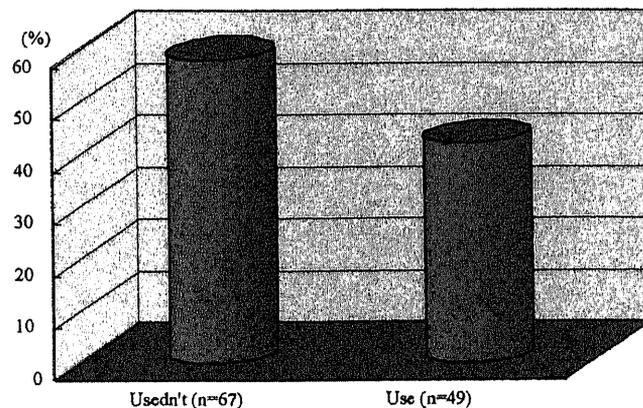


Fig. 1 The percentage of the subjects who make use of conceptual models/categories in their midwifery practice (n=116)

their age, the type of educational training received in basic nursing and midwifery, the number of years working as a midwife, the department they belonged to, and the position they occupied. Based on the conceptual models and categories reported at nursing conferences and relevant literature, the following seven items were set up for the subjects to select and respond to : NANDA nursing diagnosis (NANDA, here after), Orem's self-care model (Orem), Maslow's theory of needs (Maslow), Roy Adaptation Model (Roy), Gordon's nursing category according to functions (Gordon), Usui's scientific nursing theory (Usui) and a complex of the above models/theories. The motivational level of the subjects towards using midwifery diagnosis was measured by using a 4-point Likertscale.

3. Statistical Analysis

For the statistical analysis, Stat View Version 10, J was used. For the analysis of usage frequency of nursing conceptual models and category, non-parametric Mann-Whitney U Test was used.

Results

1. Demographic Information

The number of valid responses was 116 (90.6%). The age range of the subjects was between 20 and 58 years old with the average of 32.9. The number of those who completed a 3-year program in basic nursing was 96 (82.7%). The number of those who

completed midwifery education at a junior college was 62 (53.4%). The number of those who worked in mixed wards was 67 (57.8%), (Table 1).

2. Usage of Nursing Conceptual Models and Categories

The number of the subjects who responded that they were using nursing conceptual models and categories was 49 (42.2%). (Figure 1) The mostly frequently used models were : NANDA (15 subjects ; 30.6%), Gordon (10 ; 20.4%), and Roy (9 ; 18.4%). The number of those who used Orem, Maslow and Usui was all 3 (6.1%), respectively. The number of those who made use of these models in combination was 6 (12.2%), (Figure 2).

3. Use of Nursing Conceptual Models and Category, and Characteristics of Midwives

- 1) Basic nursing education : The number of subjects who made use of conceptual models and categories was 44 (45.8%) for graduates of 3-year programs and 5 (25.0%) for the graduates from 2-year programs. The most frequently used model that was common to both groups was NANDA (respectively, 13 ; 13.5% and 2 ; 10.0%).
- 2) Midwifery education : The number of the subjects who used conceptual models and categories was 14 (25.9%) for the nursing school graduates and 35 (56.5%) for the junior college graduates ; the difference was significant ($p < 0.01$), (Figure 4).

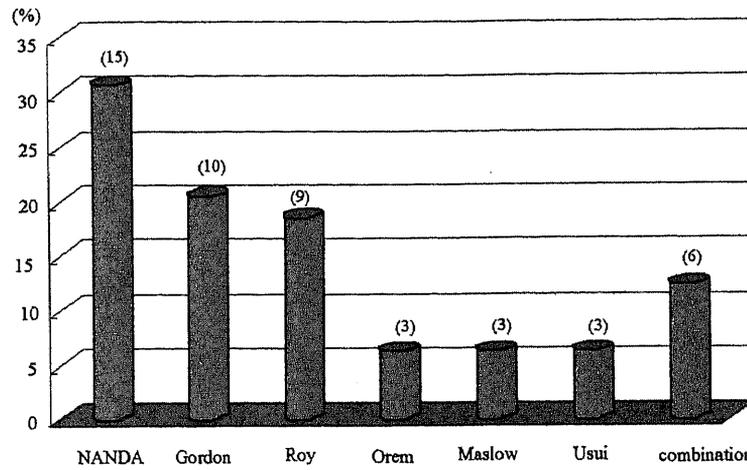


Fig. 2 Kinds of conceptual models/categories in their midwifery practice (n=49)

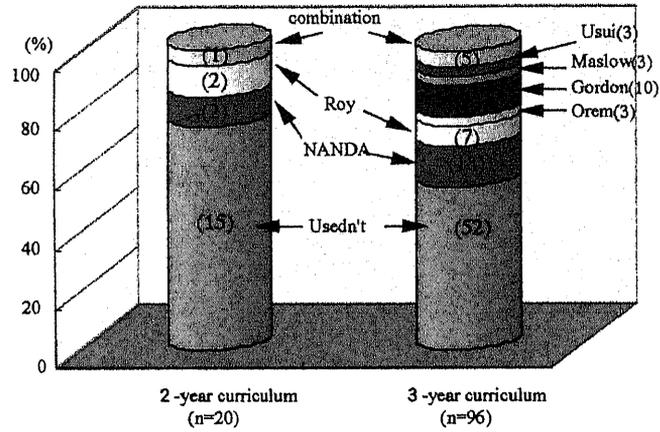
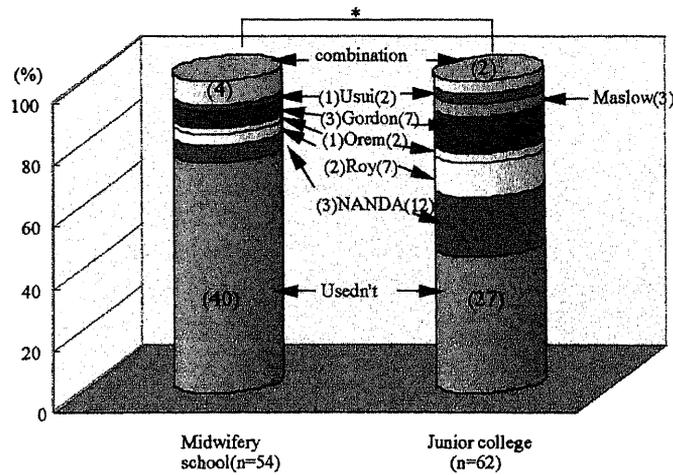


Fig. 3 Basic nursing education and rate of use for conceptual models/categories (n=116)



*: Difference of use rate : $p < 0.01$ Mann-Whitney U test

Fig. 4 Midwifery education and rate of use for conceptual models/categories (n=116)

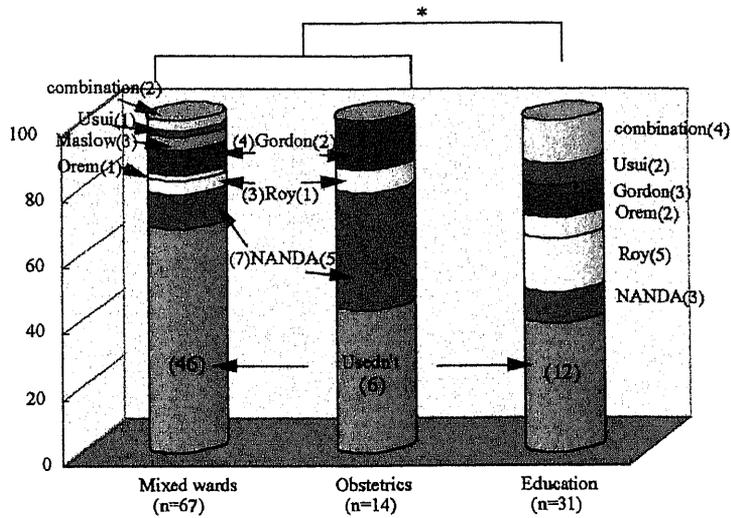


Fig. 5 Ward/Department and rate of use for conceptual models/categories (n=112)
(Analysis subjects taked chinics & others from all)

*: Difference of use rate : $p < 0.04$ Mann-Whitney U test

3) The number of years working as midwife : The number of the subjects who made use of NANDA was 7 (25.0%) for those who had worked for 1-2 years as midwife, and the number of those who made use of Gordon was 3 (17.6%) and 3 (10.3%) for those who had worked for 3-4 and 5-10 years as midwife respectively. The number of those who made use of Roy was 7 (25.9%) for those who had worked 11-15 years and 2 for complex usage of models for those who had worked 16 years or more (13.3%).

4) Department belonged to : Those subjects who were in the educational department made use of conceptual models and category more frequently than those in clinical practice ($p < 0.04$). The most frequently used model by the midwives in the obstetric ward was NANDA (by 5 subjects, 35.7%). Roy was the most frequently used by those in education (5 subjects, 16.1%), (Figure 5).

5) Positions occupied : An analysis was made for the 81 midwives who worked in clinical setting. Of the assistant head nurses and academic heads, who assumed role of supervising new midwives, 23.1% were making use of conceptual models or category. On the other hand, no head nurse or part-time midwives were making use of conceptual models or category. The number of those who worked as staff

nurses and made use of conceptual models or category was 28 (42.4%), with NANDA as the most frequently used model (10 subjects, 15.2%).

4. Motivational Level towards Midwifery Diagnosis

The motivational level was ranked into 4 levels : none, little, somewhat and strongly (motivated). More than 80% of the subjects showed a positive attitude toward midwifery diagnosis. In particular, 29 out of 50 subjects (58%) who were classified under the group "making use of conceptual models or category" indicated a strong motivational level. Moreover, more than 50% of them belonged to the following groups : those who had worked as midwife over 15 years, those who worked in education, those whose position was head nurse or higher, and those who completed 3-year basic nursing education, (Figure 6).

Discussion

Presently, conceptual models and categories are being used as what explains nursing in practice and education³⁾. About a half of the subjects did not make use of conceptual models or provide their care based on categories. This may be a reflection of differing understanding of pregnant women. Kohguchi⁴⁾ states that the use of conceptual models and categories allows us to share a common language, enhancing

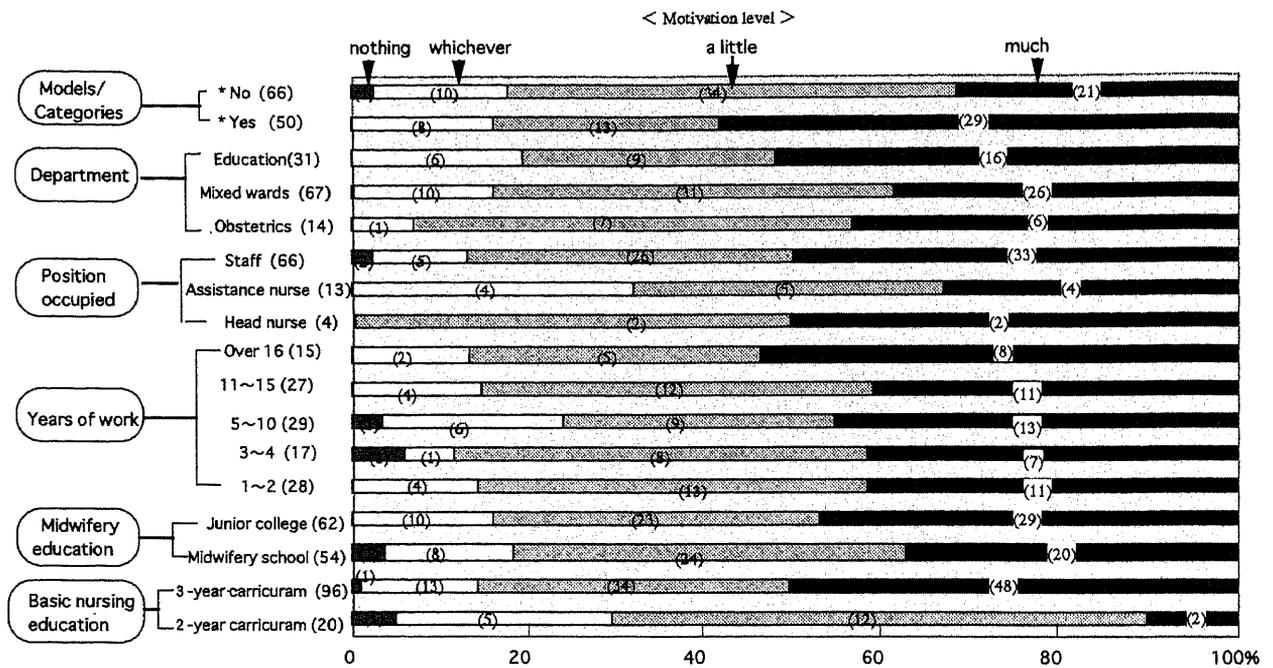


Fig. 6 Characteristics of midwives and their motivation level towards midwifery diagnosis

*Do you make use of conceptual models / categories?

care efficacy. On the other hand, many practitioners maintain that conceptual models and categories are not useful in practice, contradicting the former statement⁵⁾.

In this study, the subjects who worked in education made more use of conceptual models or categories than those in clinical practice, which is a consistent result with the above. Moreover, NANDA was the most frequently used model in obstetric wards whereas Roy was the most frequently used by those in education. NANDA is often used along with Gordon by other nursing fields besides the perinatal field⁶⁻⁷⁾.

The reason why NANDA and Gordon are frequently used is as follows. In 1973 NANDA was founded and presented its categories immediately. In 1985 the Japanese version of Gordon was published and in 1995 the Japanese Nursing Diagnosis Association was founded. The main themes of the association have been NANDA and Gordon. Is NANDA a valid model that accurately reflects practiced care of midwifery? It need be reviewed in order to determine whether diagnostic categories accurately describe midwifery care practice. In contrast, Thompson⁸⁾ and Lichtman⁹⁾ have attempted to extract concepts from

midwifery care and develop theories, which is noteworthy.

On the other hand, we also found that the midwives who made use of conceptual models and categories showed a high degree of need for midwifery diagnosis. This suggests that while making use of NANDA they are still in need of diagnosis which expresses the functions and actions of midwives.

Conclusion

The percentage of the subjects who were making use of nursing conceptual models or categories was 41.9%. The most frequently used model was that of NANDA. Furthermore, the graduates of 3-year basic nursing program and junior college midwifery courses made frequent use of the models and more staff nurses made use of the models than did administrators. Finally, the limitation of this study was that the data were based on the subjects from one particular locality and thus sampling was not necessarily representative of the entire nation.

References

- 1) Hawkins, J.W. et al. : Using a conceptual model for practice in a nursing wellness center for seniors. *Perspective,*

- 17 : 11-16, 1993.
- 2) Una, E.W. et al. : Activating clinical inferences : A component of diagnostic reasoning in nursing. Res. Nurs. Health., 9 : 269-277, 1986.
- 3) Fawcett, J., Oota, K. et al., Translation : Analysis and evaluation of nursing theories. 1st ed., 3-39, Hirokawa book-sellers, published., Tokyo, 2001.
- 4) Kouguchi, E. : From sharing nursing principles to developing nursing diagnosis. Scie. Nurs. Practi., 4 : 43-50, 1999.
- 5) Miller, A. : The relationship between nursing and nursing practice. J. Adv. Nurs., 10 : 417-424, 1985.
- 6) Nonami, Y., Mori, K. : Application of caring theory for practice with Diabetes. Nursing Arts., 46 : 13, 28-32, 2000.
- 7) Yoshimura, K. et al : An analysis of nursing diagnosis categories which capture attention in elderly nursing. J. Jap. Socie. Nurs., 21 : 3, 321, 1998.
- 8) Thompson, J. : Theory building in nurse-midwifery, the care process. J. Nurse-Midwifery., 34 : 3, 120-130, 1989.
- 9) Lichtman, R.L. : More voice for educational innovation. J. Nurse-Midwifery., 35 : 1, 1-2, 1990.

助産実践における概念モデルおよび診断類型の調査研究

島田 啓子, 名取 初美, 三村あかね, 田淵 紀子
亀田 幸枝, 関塚 真美, 丸山 綾香, 坂井 明美

要 旨

目的: 助産診断名が確立されていない現在、助産師は看護診断類型や概念モデルを参考にしている。そこで看護診断名や概念モデルの利用率をみることにより、助産診断を確立する潜在的ニーズが推察できるかもしれない。本研究は、助産師が実践の場でどのような概念モデルや診断類型を参考にしているのか、助産診断への取り組みにどれくらい意欲があるのかについて調査した。**方法:** 調査目的に同意を得た助産師128名に質問紙調査を行い、択一式回答を記入し、即時回収した(有効回答n=116)。**結果:** 看護の概念モデルや診断類型を利用していた助産師は、42.2%であった。利用の多かったのは「NANDA」が30.6%、次に「Gordon」が20.4%、「Roy」が18.4%であった。属性のなかで、概念モデルや診断枠組みの利用は、3年課程の看護教育を受け、短大専攻科で助産教育を修了した助産師に、また、職位別では、管理職よりスタッフに、さらに臨床よりは教育職の助産師のほうが多く利用していた。また現在、看護モデルや診断類型を利用している助産師のほうが、利用していない助産師より助産診断に強い意欲が見られた。**結論:** 約半数の助産師は概念モデルや診断類型を利用しないで、ケアを行っていることが明らかになった。利用していた助産師のなかで、最も多かった看護の概念モデルや診断類型は、「NANDA」であった。これらの結果は、助産ケアの専門性を重視する教育課程の違いや就業内容を反映しているかも知れない。そして助産診断への強い意欲と診断枠組みの利用は、そうした専門性を志向する助産師の自律性と関連するか、さらに検討される必要がある。