

Collaboration between Nurses and Pharmacists of Psychiatric Wards May Bring Some Changes

Michiyo Ando¹, Hajime Miyazaki², Haruka Kurihara², Ryo Nakamoto³, Yosuke Yamawaki⁴

¹Department of Child, Faculty of Psychology Counseling, Nishikyushu University, Saga, Japan

²Department of Nursing, Faculty of Nursing, Daiichi University of Pharmacy, Fukuoka, Japan

³Department of Nursing, Faculty of Nursing, Shimonoseki City University, Yamaguchi, Japan

⁴Department of Advanced Pharmacology, Faculty of Pharmaceutical Sciences, Daiichi University of Pharmacy, Fukuoka, Japan

Email: andom@nisikyu-u.ac.jp

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Abstract

Purpose: The purpose of this study was to clarify the contents of collaboration and changes between nurses and pharmacists in psychiatric wards in hospitals. **Method:** Six nurses and 3 pharmacists participated in the interview. A researcher interviewed individually for one hour. They talked about the questions <Contents of collaboration> <Difficulty and ingenuity> <Changes after collaboration>. Categories were chosen by content analysis as quantitative analysis. **Results:** We showed some categories as examples. About nurses, categories of <Contents of collaboration> were “Families were convinced by explanation from pharmacists wearing white coats”, “Patients were convinced by explanation from pharmacists”. Categories of <Difficulty and ingenuity> were “Agreement of medicine for children by family was difficult”, “Nurses looked for chances or time and asked for explanations from doctors or pharmacists”. Categories of <Changes after collaboration> were “A nurse felt a pharmacist familiar”, “A patient could take medicine and frequency of entering the hospital decreased”. About pharmacists, categories of <Contents of collaboration> were “Patients could take medicine by explanation from pharmacists”, “A pharmacist collaborated with a nurse about iv drip”. Categories of <Difficulty and ingenuity> were “Soaking in medication counseling by a pharmacist was difficult”, “A pharmacist let nurses know the instructions for high-risk medicine”. A category of <Changes after collaboration> was “A pharmacist connected a patient and a doctor”. **Discussion:** Collaboration between nurses and pharmacists led to some changes. 1) Nurses required pharmacists to explain medicine to patients or families as medicine professionals, patients and families were convinced of medication, patients could take medicine and frequencies of entering hospitals decreased. 2) Sharing knowledge about high-risk medicine or usual medicine changes consciousness of safety of nurses. Collaboration of nurses and pharmacists may bring patients’ well-being.

Keywords

Collaboration, Nurses, Pharmacist, Psychiatry, Well-Being

1. Introduction

Patients with mental health have increased worldwide, and the number of patients entering psychiatric hospitals has also increased. And the high number of accidents by nurses is related to medicine in Japan. Obtaining knowledge about medicine is needed by nurses. Collaboration was thought to be one of the methods to obtain knowledge about medicine.

Interprofessional collaborative approaches encourage patients' engagement through assessment, education and monitoring [1], and enhance medication safety [2]. Medication safety is defined as the freedom from preventable harm with medication use [3]. Lyson *et al.* [4] said that patient-related factors, provider-related factors, and health care system-related factors influence medication safety. Provider-related factors include the skill levels of caregivers, number of caregivers, errors/discrepancies in medication user process, and so on. Collaborative interprofessional strategies, such as follow-up appointments, home visits, and counselling on medication adherence by providers working in community settings [5]. Sugimoto *et al.* [6] investigated the current status of collaboration between nurses and community pharmacists and investigated requests and expectations for nurses from community pharmacists. However, the place of collaboration was not for psychiatric wards and a questionnaire study. We needed to study the contents of collaboration focused on psychiatric wards in hospitals.

2. Method

2.1. Participants

We showed the background of participants (Table 1).

Table 1. Background of participants.

ID	Gender	Age (years)	Total period of working	Period of psychiatry ward
Nurse 1	Female	20	3	3
Nurse 2	Female	20	5	5
Nurse 3	Male	60	32	30
Nurse 4	Female	30	9	5
Nurse 5	Female	50	32	13
Nurse 6	Female	30	8	8
Pharmacist 1	Female	50	30	2
Pharmacist 2	Female	50	36	34
Pharmacist 3	Male	20	3	3

Participants were from two psychiatric hospitals. Before this research, we conducted a questionnaire study and some persons showed their intention whether they would receive an interview. Researchers confirmed that they would like to participate in the interview and we recorded them as participants. Eligibility criteria were that participants had experience over three years, because they could learn professional skills. And participants in this study were from different wards.

2.2. Procedure

The interview was conducted in the hospital or ZOOM about one hour. There were 4 questions about “Contents of collaboration”, “Difficult points and ingenuity points”, “Changes in the wards after collaboration”, and “Impressive cares”. We selected these questions in the following way. In the first questionnaire study, we prepared some questions referring to previous studies, and we got results such that there were some commonalities in how they perceive collaboration and influence of it. Then, we thought that these questions in this study were suitable.

We analyzed on another occasion about “Impressive cares”, because it was different from a stream of collaboration influence. We analyzed content analysis as qualitative study, code, sub-category, and categories. The first author made codes that had the shortest sentence with meaning, and similar codes were integrated into sub-categories. Similar sub-categories were integrated into categories. The second and third authors checked the code, sub-categories, and categories. When there were differences in categorization, they discussed until agreements.

2.3. Ethics

This study was approved by Nishikyuyu University. The interviewer explained in detail and got informed consent.

3. Results

3.1. Results of Contents Analysis of Nurses

We chose 12 categories for nurses (**Table 2**).

Table 2. Categories chosen by contents analysis from nurses’ interview.

Questions	Sub-categories	Categories
Contents of collaboration	*Nurses asked pharmacists for explanation for patients’ families.	1) Families were convinced by explanation from pharmacists wearing white coats.
	*Only pharmacists wear white coats.	
	*Families were convinced.	2) Patients were convinced by explanation from pharmacists.
	*Patients were convinced about side effects much better by pharmacists than nurses.	
	*Patients were convinced about side effects by pharmacists using data.	3) Nurses consulted pharmacists about medicine or administration of it.
	*Nurses asked effects of medicine.	
	*Nurses consulted with pharmacists from questions by a patient.	4) Pharmacists sorted medicines of patients.
	*Pharmacists sorted medicine when elders went into hospital.	
	*Pharmacist sorted medicine of elders with dementia.	

Continued

Difficulty and ingenuity	*Nurses felt difficult when patents didn't agree with child medication.	5) Agreement of medicine for children by family was difficult.
	*Doctors and pharmacies were busy.	6) Nurses looked for chances or time, and asked for explanations from doctors or pharmacists.
	*Nurses asked for pharmacies explanation to a family by the doctor or the pharmacist.	
	*All staff received workshops about medicine.	
	*Nurses sit together when a pharmacist confirmed medicine from patients' family at going into hospitals.	7) Nurses tried to study medicine.
	*Nurses studied medicine before taking with a pharmacist.	
	*Nurses thought communication was important.	8) Nurses valued communication and mutual understanding.
Changes after collaboration	*Nurses thought mutual understanding was important.	
	*A pharmacist had many chances to meet a patient.	9) A nurse felt pharmacist familiar.
	*Nurses had chanced to collaborate with a pharmacist.	
	*A nurse consulted a pharmacist when a patient felt bad.	10) A patient could take medicine and frequency of entering the hospital decreased.
	*A patient became to take medicine.	
	*Frequency of entering the hospital decreased.	11) Medicine amount was adjusted by collaboration.
	*Multidisciplinary monitored effects of sleeping pill.	
	*Multidisciplinary monitored effects of Clozaril.	
	*Multidisciplinary had a study group.	12) Knowledge in the ward increased.
	*Consciousness for safety increased.	

3.2. Categories Chosen by Content Analysis of Pharmacist

We obtained 7 categories from pharmacist' interview (**Table 3**).

Table 3. Categories chosen by contents analysis from pharmacist interview.

Questions	Sub-categories	Categories
Collaboration contents	*Some patients didn't take medicine.	1) Patients could take medicine by explanation from pharmacists.
	*When a pharmacist explained instead of a nurse, they took.	
	*A nurse questioned about speed of antibiotics iv drip.	2) A pharmacist collaborated with a nurse about iv drip.
	*The pharmacist explained the reason for the speed thinking of doctor's intention.	
	*A family member asked a pharmacist about life in the hospital at discharge guidance.	3) A pharmacist and a nurse collaborated at discharged guidance.
Difficulty and ingenuity	*The pharmacist required a nurse to sit together.	
	*A pharmacist did ward works during busy.	4) Soaking in medication counseling by a pharmacist was difficult.
	*The number of pharmacists was few.	
	*Soaking in medication counseling was difficult.	
	*A pharmacist handed on instruction manual for high-risk medicine.	5) A pharmacist let nurses know the instructions for high-risk medicine.
	*The pharmacist put on the instruction manual on table in the ward.	
	*The pharmacist called out about instructions or by e-mail.	
Changes after Collaboration	*A pharmacist proposed a change of medicine because of falling down risk.	6) A pharmacist contacted doctors and collaborated.
	*A pharmacist consulted doctors about refusal of taking medicine.	
	*A pharmacist talked with a patient regularly.	7) A pharmacist connected a patient and a doctor.
	*A doctor could not talk with her.	
	*The doctor consulted the pharmacist how to talk with her.	

4. Discussion

4.1. About Characteristics of Background

The number of participants was 2 males and 7 females. The range of years was 20 years (3 persons), 30 years (2 persons), 50 years (3 persons), 60 years (1 person). The working experience range was from 3 to 36 years, and it seems to be a large difference.

4.2. About Characteristics of Categories

As for the question <Contents of collaboration>, categories like “Families were convinced by explanation from pharmacist wearing white coat” or “Patients were convinced by explanation from pharmacists” showed that explanations about medicine from pharmacists were effective. On the other hand, about “A pharmacist and a nurse collaborated at discharge guidance” showed that the pharmacist didn’t know the patient’s state or appearance in the hospital life when they talked to families. This result supports Ichimura *et al.* [7], who found that pharmacies seek information about “patients’ state” or “patients’ family”. From these categories, there is a role for a nurse and a pharmacist clearly. Smith [8] showed that role clarity is vital. Celio *et al.* [9] said that the lack of role clarity and hierarchical nature of collaboration, nurse-pharmacist collaborators suffer as members feel that their scope of practice is encroached by the other profession.

As for the question <Difficulty and ingenuity>, a category “Nurses valued communication and mutual understanding” supported Lee *et al.* [10], in which a need of better communication channels, skill mix within varying scopes needs to be further examined, in terms of collaboration.

There are some differences in the results of this study and the previous study. Sugimoto *et al.* [6] showed categories about hopes from pharmacists to nurses, like “Hope for better collaboration”, “Hoping nurses will make the most of their profession”, and “Establishing a trusting relationship”. In this study, nurses and pharmacists collaborated and tried to make good relationships.

In Japan, the number of pharmacists may be small, and they have come to have another role of medicine guidance in psychiatric wards. In these situations, sharing information timely is difficult. New technology or ICT to promote communication or sharing information may be useful in the future. It supports a previous study [11].

Lastly, we referred to categories. In content analysis, we included both duplicated codes and a few codes, along with basic qualitative analysis, such that a few codes have meaning. Although each participant has various experiences, categories show the individual account.

4.3. Changes of Nurses and System in the Ward by Collaboration

Collaboration between nurses and pharmacists led to some changes.

“Patients were convinced by explanation by a pharmacist”, “Patients could take medicine by pharmacist’ explanation”, and “A patient could take medicine and

frequency of entering the hospital decreased”. It shows that collaboration between a nurse and a pharmacist led patient’s quality of life. Similarly, about taking attentive medicine Clozaril, multidisciplinary monitored effects of this medicine, and the amount of Clozaril was increased, like the category “Medicine amount was adjusted by collaboration”. The facts that patients are beginning to take medicine or increase amount of medicine suggest that collaboration may promote patients’ well-being.

Moreover, nurses’ consciousness for risk or safety changed. Categories “A pharmacist let nurses know the instructions for high-risk medicine”, “Nurses tried to study about medicine”, and “Knowledge in the ward increases” showed that collaboration promoted nurses to study medicine. Then, studying medicine will prevent accidents and maintain safety. This supports Celio *et al.* [9] or Toivo *et al.* [12].

4.4. Limitation

There are some limitations. 1) The working experience range of nurses and pharmacists was so large, and it might influence the contents of interview. 2) Participants were volunteers who had intention to receive interviews in the previous study, they might have high consciousness for working as a profession. Then, this procedure might influence the results. 3) The number of participants of nurses and pharmacists is small and we can’t generalize. We need to include many more participants.

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Author Contributions

Michiyo Ando: Data collection and writing a paper; Hajime Miyazaki: Making concept of this research and data collection; Haruka Kurihara: Data collection; Ryo Nakamoto: Giving advice on this research; Yousuke Yamawaki: Giving advice from a pharmacist.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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