Qualitative and Inductive Research on the Workplace Adaptation of New Nurses 新人看護師の職場適応に関する質的帰納的研究

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Abstract

This study aimed to qualitatively and inductively elucidate the workplace adaptation of new nurses. Semistructured interviews regarding workplace adaptation behaviors and states of new nurses were conducted with 16 nurses who had been recruited as new graduates, had completed the first year of employment, and were in the second year of employment at the same department. The interviews were conducted from August to December of 2013. Workplace adaptation behaviors and states were analyzed qualitatively and inductively based on Piaget's theory of adaptation (1948/1978). For workplace adaptation behaviors, 96 subcategories, 35 categories, and 5 core categories — "acts to learn the necessary expertise to perform duties," "acts for building new relationships," "acts to facilitate duties," "acts related to self-adjustment to work," and "preparedness to face work" — were generated from 269 codes. For workplace adaptation states, 53 subcategories, 14 categories, and 4 core categories—"sense of belonging to the team," "nursing practice responses," "autonomous execution of the role," and "self-efficacy for work" - were generated from 130 codes. It was clarified that new nurses incorporate new actions and thinking and change their pre-existing ways of thinking at newly joined workplaces. This is thought to be the assimilation and accommodation explained by Piaget. The contents of workplace adaptation states were similar to Level I of the Standard Clinical Ladder (Japanese Nursing Association, 2003) and described adaptation states, which were generally required in new nurses and were aligned with reality, at an achievable level. The results of this research may be utilized as basic information regarding workplace adaptation of new nurses.

Keywords: New nurse, workplace adaptation behavior, workplace adaptation state, qualitative and inductive research

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1. Introduction

New nurses face difficulties in their transition from students to nurses (Nagai, 2009) while reality shock (Taniguchi et al., 2014) and early resignation (Omori et al., 2012) become issues. Studies on resignation prevention and workplace adaptation of new nurses have focused on approaches to psychological aspects such as stress (Kuramasu et al., 2012), method and content studies of training for new employees, interaction of supervising nurses with new nurses (Yajima, 2009), and improvement of surrounding support and working environment (Takatani, 2010). So far, the studies on workplace adaptation of new nurses have not focused on the efforts of the new nurses themselves to adapt to the workplace.

Workplace adaptation of new nurses tends to be studied based on a combination of multiple concepts including reality shock (Hanaoka et al., 2006) and early resignation (Onoda et al., 2012). Among the research on early resignation and reality shock of new nurses, many theses use the term "workplace adaptation," but few clearly define this concept, and many studies measure workplace adaptation based on a combination of concepts related to reality shock, burnout, identity, and job satisfaction.

The concepts used in the measurement of workplace adaptation were generally classified into two types — namely, responses resulting from adaptation and failure of adaptation.

Responses that resulted from adaptation were job satisfaction (Wakasa et al., 2011; Sunami et al., 2010; Miwa et al., 2010), continuation of work (Tsukamoto et al., 2010), self-esteem (Sunami et al., 2010), organizational socialization (Onoda et al., 2012), and identity establishment as a nursing professional (Miwa et al., 2010).

Job satisfaction and work continuation are the feelings of new nurses to continue their work due to adaptation to the workplace and a sense of satisfaction about their work. However, these concepts do not reflect adaptation to the workplace. Self-esteem can still be maintained even if new nurses are not adapted to the workplace. In contrast, even if new nurses are adapted to the workplace, they may originally have low self-esteem due to individual characteristics. Ogata (2012) positioned organizational socialization as a component of organizational adaptation, and discussion on workplace adaptation based on only organizational socialization is considered insufficient. Identity establishment as a nursing professional is also thought to have resulted from a new nurse's acquisition of a sense of belonging to the workplace and the roles as well as values as a nursing professional after getting involved in human relations at the workplace.

Responses that resulted from failure of adaptation were burnout (Onoda et al., 2012; Wakasa, 2011; Tsukamoto et al., 2010; Miwa et al., 2010), reality shock (Hanaoka et al., 2007; Tsukamoto et al., 2010), early resignation (Onoda et al., 2012; Hanaoka et al., 2007; Sunami et al., 2010), desire for resignation (Hanaoka et al., 2007), role conflict (Hanaoka et al., 2007), and stress (Hanaoka et al., 2007; Nakamura et al., 2006).

Burnout refers to the mental and physical symptoms shown when excessive and continuous stress is not coped with (Tao et al., 1994). Although new nurses are exposed to stress, considering the level of their clinical experience, it is questionable whether the stress can be regarded as continuous stress at a level that may cause the burnout symptom of depersonalization.

Reality shock is the shock that arises from the first encounter of the gap between one's anticipation and dreams and the work done at an organization or the reality of the organization (Kramer, 1974). Although the

cause- effect relationship between reality shock and workplace adaptation is unclear, if a new nurse faces shock and cannot adapt to his/her workplace, reality shock is not the result of workplace adaptation but its influencing factor. Thus, it is not possible to measure workplace adaptation based on reality shock.

Early resignation and resignation desire do not result from workplace adaptation but occur when workplace adaptation does not happen. Therefore, it is difficult to directly measure the outcomes of workplace adaptation by using the scale of these concepts. Although role conflict and stress are the outcomes of failure of workplace adaptation, they are also the factors influencing the adaptation process.

Yamamoto (2009) measured workplace adaptation through social skills and nursing practice abilities, but these are thought to be independent variables that are the factors influencing workplace adaptation. In terms of other influence factors, environmental factors include a training system, human support (Onoda et al., 2012), patients' gratitude and recovery, support from preceptors, role model of senior nurses (Miwa et al., 2010), group counselling (Wasa, 2011), human relations at the workplace (Tsukamoto et al., 2010; Sunami et al., 2010), and mentoring (Sunami et al., 2010). Individual internal factors include stress coping strategies (Onoda et al., 2012), level of nursing skills (Miwa et al., 2010), personality (Wasa, 2011), quantitative and qualitative burdens of duties, and physical burdens (Sunami et al., 2010).

The workplace adaptability scale developed by Fujimoto et al. (2010) did not classify participants based on career stages and included all nurses in general. Thus, it is not applicable as a scale for this research focusing on new nurses. Katsuhara et al. (2004) stated that the reality shock of new nurses is influenced by the demand of both organizational and occupational socialization, and workplace adaptation of new nurses is considered different from that of experienced nurses. Professional socialization is a complex process with 4 critical attributes: learning, interaction, development, and adaptation (Dinmohammadi et al., 2013). To grasp the characteristics of new nurses, it is necessary to consider the unstable elements of workplace adaptation specific to new nurses in the complex adaptation process.

New nurses face new experiences every day and are occupied acclimating to new duties. This awareness is restricted to a narrow cognition area, and it is difficult to broaden new nurses' horizons to the whole organization and work. Ogata (2012) grasped organizational adaptation, a concept similar to workplace adaptation, as an integral concept and measured it through organizational socialization, organizational commitment, and desire to resign. However, in the research area of nursing science, workplace adaptation is more common than organizational adaptation, and it is more frequently used in research involving new nurses. In addition, it is more appropriate to adopt workplace, which is a smaller unit than an organization, in this research.

In previous research on workplace adaptation of new nurses, there was much literature regarding the factors influencing workplace adaptation and how the surrounding could support new nurses in workplace adaptation. However, as explained by Takizawa et al. (1999), adaptation occurs through bilateral negotiation between the subject and target. Although the surrounding support is necessary, it is also important for new nurses themselves, as the subject, to work hard and take actions to adapt to their workplace.

Piaget (1948/1978) described adaptation as a balance between assimilation and accommodation and

differentiated between adaptation process and adaptation state. Assimilation is the incorporation of external reality into the form based on one's activities and the structuring of it while accommodation is the constant changing of one's pre-existing schema to suit new information while incorporating new elements into the schema. According to Piaget (1948/1978), organisms are transformed by the environment, and, thus, while the commutation relation between the environment and organisms develops in a desirable direction for the survival of organisms, adaptation happens. In the process of workplace adaptation, the preceding requirement is the environmental change and the collapse of balance in a person who newly joined a workplace. To achieve balance, the person who newly joined the workplace incorporates new behavior patterns and ways of thinking and adopts the adaptation behavior of changing behaviors and ways of thinking following actions from the workplace, which is the environment, and, thus, could achieve the adaptation state of stable equilibrium.

In this research, the process of new nurses achieving equilibrium, while incorporating new ways of thinking and behaviors at a newly joined workplace and changing pre-existing ways of thinking and behaviors, is grasped as workplace adaptation behavior while the equilibrium achieved as a result of the process is grasped as workplace adaptation state. The study of the workplace adaptation of new nurses from the aspects of individual learning and development, based on Piaget's theory of adaptation, is unprecedented and, thus, significant.

2. Objective

To qualitatively and inductively clarify the workplace adaptation of new nurses.

3. Operational Definition of Terms

A new nurse is a nursing staff member who is employed at his/her first job after acquiring the certificate (Ministry of Health, Labor and Welfare, 2014) and is still in the first year of employment.

Workplace adaptation is defined as an individual's action of changing him/herself and influencing the environment after experiencing the collapse of internal and external balance upon joining a new workplace to achieve a new equilibrium as well as the resulting stable equilibrium between the individual and the workplace (Piaget, 1948/1978).

4. Methods

The research design was qualitative and inductive.

The participants were 16 nurses from participating facilities who had consented to participate in the research. The participants had been recruited as fresh graduates; had no previous working experience, except part-time jobs when studying, or experience as assistant nurses; had completed the first year of employment; and were in the second year of employment at the same department. The participating facilities were extracted through convenient sampling from general hospitals in the Kinki area, had more than 200 beds, were recognized by the Japan Council for Quality Health Care, and had consented to cooperate in the research. The research period was from August to December of 2013.

The research method was semi-structured interviewing. In accordance with interview guidelines, the participants were required to reflect on their first year of employment and provide information such as how they adapted to their workplace, efforts made to adapt to their workplace, when they felt they acclimated to and fit into the workplace, and from what situation they acquired such a feeling.

With the participants' consent, recorded interview contents were transcribed, and the data were analyzed qualitatively and inductively with reference to content analysis based on Berelson's methodology (Funashima, 2012). Two research questions were constructed regarding workplace adaptation behavior and workplace adaptation state with reference to Piaget (1948/1978), who classified adaptation process and adaptation state. Contents that apply to 00 of the answer "New nurses adapt to their workplace by 00" in response to the question "What kind of behavior did new nurses adopt to adapt to the workplace?" were extracted as the codes of workplace adaptation behavior. The codes of workplace adaptation states were extracted from the answer "New nurses recognize the state of 00 as workplace adaptation" in response to the question "New nurses recognize what kind of state as workplace adaptation?" The codes were then collected according to same record unit groups, and the work of converting them into category names that precisely expressed them was repeated.

This research was conducted upon approval of the Research Ethics Committee of the School of Nursing, Osaka Prefecture University (Application Number 25-30). The participants in this study were nurses, and the research candidates were introduced by the superiors. As the nurses were evaluated by their superiors, they might feel certain burdens, such as interference of privacy, mental pressure, and time restriction, while taking part in the research. Thus, sufficient consideration is required. Therefore, participants' participation was requested while ensuring no power interference from higher positions, and their willingness to participate was confirmed through mail. A research schedule and time were set while ensuring no interruption to the facilities and the participants' duties, and interviews were, upon consultation with the facilities, requested while ensuring candidates' freedom to participate and privacy as well as an environment that allowed the candidates to take their time to consider whether to participate in the research. In case any participant had any inquiry, explanation was given politely to ensure understanding. Participants were explained that data would be analyzed anonymously, would not be used apart from for this research, would be stored under strict management, and would be disposed of while maintaining anonymity upon completion of this research.

5. Results

Among the five facilities extracted through convenient sampling, four consented to participate in the research. Under hospital function classification, there were one advanced treatment hospital, one regional medical care support hospital, and two public medical facilities. A total of 20 participants were introduced by the nurse administrator of each facility. Among them, 16 female participants consented to participate in the research, and the researched employment period was between one year and five months to one year and seven months after employment (Table 1).

Particip ant	Gender	Basic Education	Certificate Held	Employment Period	Department	Hospital Function Classification
A	Female	4-year University	Nurse & Public Health Nurse	1 year 5 months	Department of Internal Medicine	Advanced Treatment Hospital
В	Female	4-year University	Nurse	1 year 6 months	Department of Internal Medicine	Advanced Treatment Hospital
С	Female	4-year University	Nurse & Public Health Nurse	1 year 6 months	Department of Internal Medicine	Advanced Treatment Hospital
D	Female	4-year University	Nurse & Public Health Nurse	1 year 7 months	Surgical Department	Advanced Treatment Hospital
Е	Female	4-year University	Nurse & Public Health Nurse	1 year 6 months	Surgical Department	Regional Medical Care Support Hospital
F	Female	4-year University	Nurse & Public Health Nurse & Midwife	1 year 6 months	Maternity Ward	Regional Medical Care Support Hospital
G	Female	4-year University	Nurse & Public Health Nurse & Midwife	1 year 6 months	Maternity Ward	Regional Medical Care Support Hospital
Н	Female	4-year University	Nurse & Public Health Nurse & Midwife	1 year 6 months	Maternity Ward	Regional Medical Care Support Hospital
I	Female	4-year University	Nurse & Public Health Nurse	1 year 6 months	Department of Internal Medicine	Public Medical Facility
J	Female	4-year University	Nurse & Public Health Nurse	1 year 6 months	Mixture	Public Medical Facility
K	Female	Vocational School (3-year course)	Nurse	1 year 6 months	Department of Internal Medicine	Regional Medical Care Support Hospital
L	Female	Vocational School (3-year course)	Nurse	1 year 6 months	Surgical Department	Regional Medical Care Support Hospital
M	Female	Vocational School (3-year course)	Nurse	1 year 6 months	Department of Internal Medicine	Public Medical Facility
N	Female	Vocational School (3-year course)	Nurse	1 year 6 months	Surgical Department	Public Medical Facility
0	Female	Junior College (3- year course)	Nurse & Public Health Nurse	1 year 5 months	Department of Internal Medicine	Public Medical Facility
Р	Female	Junior College (3- year course)	Nurse	1 year 6 months	ICU & CCU	Public Medical Facility

Table 1. Participant attributes of the study on workplace adaptation of new nurses

For workplace adaptation behaviors, 96 subcategories, 35 categories, and 5 core categories were generated from 269 codes (Table 2). For workplace adaptation states, 53 subcategories, 14 categories, and 4 core categories were generated from 130 codes (Table 3).

The "acts to learn the necessary expertise to perform duties" of workplace adaptation behaviors comprised 14 categories and 43 subcategories that demonstrated the behaviors of new nurses to acquire the knowledge and skills necessary for working at the department they belonged to. The "acts for building new relationships" comprised 7 categories and 20 subcategories that demonstrated the behaviors of new nurses to build relationship with surrounding people, which is the human environment in the newly joined workplace. The "acts to facilitate duties" comprised 3 categories and 9 subcategories that demonstrated the behaviors of new nurses to perform their own daily duties smoothly and steadily. The "acts related to self-adjustment to work" comprised 3 categories and 3 subcategories that demonstrated the behaviors of new nurses themselves in controlling and preparing their physical conditions and feelings for work. "Preparedness to face work" comprised 7 categories and 20 subcategories that demonstrated the ways of thinking and approaches towards work that were incorporated by new nurses while working.

The core category "sense of belonging to the team" of workplace adaptation states comprised 3 categories and 11 subcategories that demonstrated the new nurses' states of feeling that they have fit in as a member of the workplace. "Nursing practice responses" comprised 3 categories and 13 subcategories that demonstrated the new nurses' states of recognizing the growth of a professional self while carrying out routine work.

"Autonomous execution of the role" comprised 5 categories and 18 subcategories that demonstrated the new nurses' states of being able to regulate and perform duties under their charge by themselves. "Self-efficacy for work" comprised 3 categories and 11 subcategories that demonstrated the new nurses' states of feeling incorporated into the workplace and being able to produce desirable outcomes at work.

Table 2. Workplace adaptation behaviors of new nurses

Catamann	Cubantania
Category	Subcategory
o learn the necessary expertise	
Ask questions about	Ask seniors for advice about interaction with patients
interaction with patients	Ask questions about caregiving for critically ill patients
	Ask for advice about learning contents
Take initiative to ask about	Muster courage to talk to seniors and ask questions
unclear matters and learn	Ask questions about unclear matters, and resolve them
	Ask questions about matters that remain unclear even after research
	Ask questions about the meaning of technical terms
Ask questions about action modes corresponding to	Ask questions about actions corresponding to situations
situations	Ask seniors for advice about action modes at the workplace
Check progress through comparison with peers	Find out the progress situation of peers
	Reflect on what one can do on one's own
	Reflect to ensure the incorporation of new experience in the next case
practice	Jot down and reflect on happenings at work
	Reflect to ensure successful handling of previously difficult cases
	Organize and arrange materials and notes
Utilize learning tools to learn	Utilize checklists to find out the level of achievement
Comze rearming tools to rearm	Organize procedures and goods in notebooks and utilize from time to time
	Utilize training as a learning opportunity
Ask questions about know-	Ask about observation items and diagnostic criteria
hows in nursing practice	Ask about the know-hows of skills
Tackle learning continuously	Continuously tackle issues from the hospital ward
	Take initiative to research knowledge necessary for duties
4 ' 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Utilize books and reference books to study
Acquire knowledge and skills through self-learning	Study and broaden knowledge
	Study matters about which one's knowledge is lacking
	Study to understand diseases
	Actively participate in caregiving and accumulate experience
Accumulate experience actively	Actively observe and learn treatment where one's experience is little
	Take initiative to offer and get opportunities to carry out treatment
Incorporate knowledge learned from seniors into	Accept seniors' advice and modify learning contents
one's own practice	Jot down seniors' actions and teaching, and keep them in mind
-	Observe seniors' action modes and learn
	Observe seniors' working methods, learn, and follow suit
Observe seniors' working methods, and learn	Observe seniors' working approach, and learn
monious, and teath	Observe seniors' information collection points, and learn
	Observe seniors' handling methods, and learn
	Acquire knowledge and skills
Acquire expertise and skills	Check the status of skill learning
	Truly learn the skills

oport one another, and rn with peers ilding new relationships w passion in front of	Jointly learn with peers Exchange information with peers Connect with peers Talk with peers, and empathize one another
rn with peers ilding new relationships	Connect with peers
ilding new relationships	-
	Talk with peers, and empathize one another
w passion in front of	
ors	Show one's efforts to gain seniors' recognition
	Listen to various types of team members carefully
w the characters of team	Explore the human relations among team members
members	Find opportunities to understand team members' nursing views
	Accept the diversity of team members
	Understand the characters of team members through private opportunities
ve to build relationship	Work hard to build a close relationship with seniors
seniors	Talk to seniors at an appropriate time
1 1 1	Work hard to build relationship with patients
d relationship with ents	Approach patients
	Accept the diversity of clients
	Communicate with doctors
ract with doctors for es' need	Confirm instructions with doctors
ob 1100a	Ask seniors for advice about interaction with doctors
	Actively participate in events apart from duties
e initiative to join the	Take initiative to join the circle of staff
e of people at the	Take initiative to find a good time, and talk to them
kplace	Take initiative to find topics to talk to them about
	Join conversations actively
w consideration for	Show consideration for seniors as a new employee
ors	Respect the hierarchy among team members
ilitate duties	
erstand team members'	Observe team condition before acting
lition before acting	Understand the working methods of team members
sider action modes	Act after considering the flow
iently	Set up a daily plan in the morning
	Consult administrators
	Check the meaning of instructions with multiple staff
	Confirm before acting
idit	Consult seniors
	Recognize the need of reporting, and communicate one's own thinking properly
d to self-adjustment to wo	rk
ize training opportunities iently	Utilize training opportunities to refresh oneself
ntain physical condition vork	Relax well and manage health
otion control	Control emotions by talking with peers, seniors, family, and friends
ess to face work	
sider roles in the first	Consider getting used to work as a role in the first year Consider acquiring the ability to carry out duties independently as a role in the first year
	Enjoy acquiring knowledge and skills
	Accept strict advice with a positive mindset
work positively	Strive to understand the meaning of guidance
work positivery	Tell oneself to enjoy work
	Improve to perform better next time
	improve to benonin perfer next filling
e e k e e e e e e e e e e e e e e e e e	re to build relationship seniors If relationship with ents react with doctors for es' need reinitiative to join the entry of people at the entry of people entry of

_	Prepare oneself for the worst and tackle work		
Tackle work with resolution	Depend on evaluations without fear		
rackie work with resolution	Strive hard to learn all about one's duties		
	Accept oneself who has failed without running away		
Keep one's own thoughts to	Never give excuses		
oneself	Suppress one's emotions, and listen to whatever that is told		
Reach agreement with one's mindset	Reach agreement with one's inner self on various types of working methods		
	Recognize the sense of responsibility towards patients and complete duties		
Hold responsibility for one's duties	Recognize the sense of responsibility to take charge of hospital rooms		
	Recognize the sense of responsibility towards work		
Tackle work with a goal	Work towards the goal of acquiring the ability to complete work		
rackie work with a goar	Strive with the goal of acquiring the ability to act independently		

Table 3. Workplace adaptation states of new nurses

Core categ		
	Category	Subcategory
Sense of bel	onging to the team	
		Able to communicate smoothly with team members
Build	Building relationship with team members	Able to communicate with doctors
team		Able to build relationship with team members
		Understand the human relations among members
ъ.		Able to depend team members for work
_	able to act as a per of the team	Able to sense the actions of team members
	member of the team	Able to follow the pace of team members
		Able to realize that oneself is being helped in the team
Havir	Having the actual feeling as a	Recognition as a member of the team by team members
memb	per of the team	Open one's heart with team members
		Get used to the atmosphere at the hospital ward and to team members
Jursing pra	ctice responses	
		Able to practice necessary nursing skills in general
_	ring expertise sary for duties	Understand necessary nursing skills in general
		Able to understand the meaning of technical terms and abbreviations
		Able to roughly predict patients' progress
_	able to carry out	Able to conduct assessment during sudden change
	sments and cope with ats under sudden	Able to confirm handling measures and act accordingly during sudden change
chang		Able to conduct clinical judgment
		Able to report assessment during sudden change
		Able to build relationship with patients
_	able to consider	Able to consider nursing independently and implement accordingly
_	iving in the relation patients and implement	Able to gradually incorporate patients' wish into plans
accordingly	•	Able to gradually develop nursing under their charge independently
		Able to express caregiving thought by oneself
utonomous	s execution of the role	
		Able to take initiative in asking questions
		Able to take initiative in reporting plans thought by oneself
_	able to report, nunicate and consult	Able to practice confirmation and consultation with seniors
COMM	umeate and consuit	Able to precisely report, communicate, and consult regarding necessary items
		Able to convey one's thinking to seniors and understand seniors' guidance

	Make duties smooth, and stay together with patients
	Speed up work
Grasping the flow of duties	Able to conduct duties smoothly without delay
and conducting them smoothly	Able to observe the flow of duties and act accordingly
•	Understand the flow of duties
	Experience duties in general, and keep them in mind
	Able to grasp duties overall and set priority
Being able to act considering priority	Understand the priority of duties
priority	Able to set priority according to one's own pace and act accordingly
Being able to perform one's	Able to perform duties and roles well
roles at work	Able to manage all duties precisely
Being able to complete work	Able to establish a working method of one's own
systematically by one's own method	Able to set up plans and manage time
fficacy for work	
	Losing seniors' protection
Being able to actually feel	Being able to actually feel independence
independence	Be independent, and be left in charge of duties
	Ability to be independent is recognized
Being able to control physical condition	Being able to control sleep routine
	Being able to enjoy interaction with patients and team members
	Feel a sense of satisfaction with work
Being able to hold affirmative	Possess the will to work hard
emotions about work	Enjoy work

6. Discussion

Workplace adaptation of new nurses was analyzed qualitatively and inductively, and the aspects of workplace adaptation behaviors and workplace adaptation states were clarified descriptively. Contents of this research were clarified descriptively based on interviews with nurses in their second year of employment. Thus, a detailed account could be given of the real face of workplace adaptation of new nurses in routine work based on the accounts of the participants themselves.

Five core categories — "acts to learn the necessary expertise to perform duties," "acts for building new relationships," "acts to facilitate duties," "acts related to self-adjustment to work," and "preparedness to face work"—were extracted for workplace adaptation behaviors.

Human behavior consists of 4 elements: action, thought, feeling, and physiology (Glasser, 1999). The core categories "acts to learn the necessary expertise to perform duties," "acts for building new relationships," and "acts to facilitate duties" of workplace adaptation behaviors include the element of action in human behavior. "Preparedness to face work" includes the element of thought—that is, to change the ways of thinking to adapt to workplace — and the elements of feeling and physiology — that is, to prepare their physical condition and feelings for work.

Adaptation behavior refers to organisms' efforts to change action modes and ways of thinking in response to environmental demands and their learning of new behaviors (The Review Committee of Technical Terms in Nursing Science of the Japan Academy of Nursing Science, 2011). "Acts for building new relationships," "acts to facilitate duties," "acts related to self-adjustment to work," and "preparedness to face work" are the actions of changing pre-existing methods until new working methods and ways of thinking are incorporated into oneself while "acts to learn the necessary expertise to perform duties" is the learning to incorporate new knowledge into oneself. Contents extracted in this research describe the elements of workplace adaptation behaviors of new nurses.

Four core categories—"sense of belonging to the team," "nursing practice responses," "autonomous execution of the role," and "self-efficacy for work"—were extracted for workplace adaptation states.

Level I of the Standard Clinical Ladder of the Japanese Nursing Association (2003) is described as follows. Nursing practice ability refers to a nurse's ability to carry out basic nursing practice (basic nursing skills, development of nursing process, etc.) at the workplace to which he/she belongs. Organizational role performance ability refers to the performance of an insignificant organizational role with the lightest responsibility and lowest difficult level. It refers to the ability to perform the role as a follower or a team member in a nursing team or the role of the person in charge of a simple routine as a person in charge of a hospital ward. Self-education and research ability refer to the ability to discover topics for self-education through guidance.

From the contents of the subcategories of workplace adaptation states, the forms of new nurses generally experiencing duties at the department they belonged to under the guidance of seniors, gaining the ability to implement necessary nursing skills in general at the department, and being able to be recognized as a member of the team could be inferred. These forms are highly similar to the contents of Level I of the Standard Clinical Ladder, and the results of this research describe adaptation states, which are generally required in new nurses and are aligned with reality at an achievable level.

"Sense of belonging to the team," "nursing practice responses," and "autonomous execution of the role" include the elements of organizational socialization (Onoda et al., 2012) that previous research used as the indicators of workplace adaptation while "self-efficacy for work" enhances self-esteem (Sunami et al., 2010).

It was clarified that new nurses incorporated new actions and thinking at newly joined workplace and changed pre-existing ways of thinking. This can be explained through assimilation and accommodation in Piaget's concept of adaptation. New nurses adopt these behaviors in their interaction with team members in the department to which they belong, and this can be regarded as the commutation relation with the environment (Piaget, 1948/1978).

This research has a limitation. As it was conducted through interviews with nurses in their second year of employment, only adaptation recognized by the participants could be clarified, and the functions of assimilation and accommodation resulting from the environment could not be specified. However, the subcategories of "able to realize that oneself is being helped in the team," "recognition as a member of the team by team members," and "losing seniors' protection" showed that new nurses themselves recognized the functions of assimilation and accommodation resulting from the environment, and this demonstrated the commutation relation with the environment.

It is at the workplace that new nurses learn through daily work and grow continuously, and the recognition that focus should be put on this aspect is broadening (Nakahara, 2010). Recently, nursing education has theoretically been influenced by the theory of situated learning. This research, which focused on workplace adaptation, is significant, and the results of this research, which descriptively clarified the aspects of workplace adaptation of new nurses, are findings that could be utilized in future studies on workplace adaptation.

7. Conclusion

In this research, workplace adaptation behaviors — "acts to learn the necessary expertise to perform duties," "acts for building new relationships," "acts to facilitate duties," "acts related to self-adjustment to work," and "preparedness to face work" — as well as workplace adaptation states — "sense of belonging to the team," "nursing practice responses," "autonomous execution of the role," and "self-efficacy for work" — were clarified. These are useful findings for future studies on workplace adaptation of new nurses as the real face of their workplace adaptation in routine work was described in detail based on the accounts of the participants themselves.

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Literature

- Dinmohammadi, M., Peyrovi, H., Mehrdad, N. (2013). Concept analysis of professional socialization in nursing. Nursing Forum, Jan-Mar, 48(1), 26-34.
- Fisher, M., King, J., Tague, G. (2001). Development of a self-directed learning readiness scale for nurse education. Nurse Education Today, 21(7), 516–525.
- Fujimoto, H., Yamauchi, H., Oikawa, M., Takama, S. (2010). Validity and reliability of nurses' workplace adaptability scale. *Nittazuka Medical Welfare Center Magazine*, 7(1), 19–23.
- Funashima, N. (2012). Challenges to Qualitative Research (2nd Edition). Tokyo: Igaku-Shoin.
- Glasser, W. (1999). Choice Theory, A New Psychology of Personal Freedom. New York: Harper Collins Publishers.
- Hanaoka, S., Fukuda, A., Tsuda, N., Yada, M., Nakamura, M., Tsuruta, S., Oshima, T., Matsuura, M., Ito, K., Furukido, Y., Kita, A. (2006). A study of adaptation to atmospheres of workplace in hospitals perceived by new graduate nurses: based on identifying the latent structure of adaptation to atmospheres of workplace, and relation with factors of "reality shock." *Bulletin of Faculty of Health Sciences, Kobe University School of Medicine*, 22, 1–11.
- Katsuhara, Y., Williamson, A., Ogata, M. (2004). The actual state of reality shock that influences the career development of professionals: focusing on professionhood changes in the process of transition from a nursing student to a nurse. *Annual Convention, Japanese Association of Administrative Science*, (7), 40–47.

- Ministry of Health, Labor and Welfare. (2014). Guidelines in training for new nursing staff (Revised Edition). http://www.mhlw.go.jp/file06-Seisakujouhou-10800000-Iseikyoku/0000049466_1.pdf (Search date: 1st July 2016)
- Kramer, M. (1974). Reality Shock: Why Nurses Leave Nursing? St. Louis, MO: The C. V. Mosby CO.
- Kuramasu, N., Tautigawa, A., Miyauti, S. (2012). Stress care of newly hired nurses using "group collage therapy." *Journal of the Japanese Association of Rural Medicine*, 61(1), 49–54.
- Miwa, M., Shijiki, Y., Shuda, A. (2010). Analysis of factors relating to adaptability of newly graduated nurses in work places. *The Journal of Japan Academy of Health Sciences*, 12(4), 211–220.
- Nagai, N. (2009). Supporting career transition. Learning from failures in career transition: issues faced by new nurses who resigned early. *The Japanese Journal of Nursing Science*, 34(9), 890–891.
- Nakahara, J. (2010). Learning in the Workplace. (pp. 35) Tokyo: University of Tokyo Press.
- Nakamura, R., Murata, C. Takahasi, S. (2006). Support for novice nurses' adjustment to the work environment: a factual survey on type of job stress as related to job position. *Bulletin of Faculty of Nursing, Hirosaki Gakuin University*, 1, 41–50.
- The Review Committee of Technical Terms in Nursing Science of the Japan Academy of Nursing Science. (2011). An important glossary that constitutes nursing science.
 - http://plaza.umin.ac.jp/jans/iinkai/yougo/pdf/terms.pdf
- Japanese Nursing Association (Ed.). (2003). Regarding the "Standard Clinical Ladder for Generalists": Nursing White Paper 2005. Tokyo: Japanese Nursing Association Publishing Company.
- Ogata, M. (2012). A positive analysis on the types of organizational adaptation at the early stage of professional career. *Journal of Business Management*, 29, 54–67.
- Onoda, M., Uchida, H., Tsumoto, Y. (2012). Longitudinal study on newly graduated nurses' adjustment to the workplace and factors that exert an influence. *The Journal of the Japan Academy of Nursing Administration and Policies*, 16(1), 13–23.
- Omori, M., Osada, K., Fukuma, M., Hirono, S., Moriyama, M., Eto, T. (2012). Newly graduated nurse experiences in early-stage resignation and reemployment. *Shimane Journal of Medical Science*, 35, 1–7.
- Piaget, J. (1948/1978). Tanimura, S., Hamada, S. (Translation), *The Origins of Intelligence* (2nd Edition) (pp. 1–20). Kyoto: Minerva Shobo.
- Sunami, N., Yaeda, J. (2010). Type of support influencing work adjustment of newly graduate nurses: covariance structure analysis. *Nurse Eye*, 23(4), 101–111.
- Takatani, Y. (2010). Approaches taken by nursing managers to promote novice nurse adaptation to the clinical setting. University of Hyogo, College of Nursing Art and Science, Research Institute of Nursing Care for People and Community Bulletin, 17, 103–115.
- Takizawa, T., Kato, S. (Translation). (1999). *Larousse Clinical Psychology Dictionary*. Tokyo: Koubundou Publishers Inc.
- Taniguchi, H., Yamada, M., Naito, C., Utsumi, M., Nin, K. (2014). The reality shock experienced by recent nursing school graduates: a suggestion for a smoother transition using real-world educational methods. *Journal of Japan Society of Nursing Research*, 37(2), 71–79.

- Tao, M., Kubo, M. (1994). Burnout in nurses: the relationship between stress and burnout. *The Japanese Journal of Experimental Social Psychology*, 1.
- Tsukamoto, N., Funaki, Y. (2010). Influence of the personal constructs on the process of job adaptation among newly graduated nurses: a study using role construct repertory test (RCRT). *The Japanese Journal of Health Behavioral Science*, 25, 241–256.
- Wakasa, M. (2011). Supports for newly graduated nurses by a clinical psychologist. *The Journal of Senri Kinran University*, 8, 144–155.
- Yajima, C. (2009). Supporting new graduate nurses the experience of preceptors. Reports of Nursing Research, Nursing Teacher's Course of Center for Professional Education, Kanagawa University of Human Services, 34, 180–187.
- Yamamoto, M. (2009). Issues of nursing education in the process of job adjustment among new graduate nurses. The Japanese Journal of Nursing Science, 34(12), 1209–1215.