

Original Article

Relationship between perceived workplace reflection support and person-environment fit among hospital nurses: a cross-sectional study

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Key words

nurse managers, perceived person-environment fit, support in workplace, colleagues, reflection

Abstract

Aim: When person-environment fit is high, employees have positive feelings and attitudes toward their jobs and workplaces. Reflection support, where reflection is prompted by others, could be related to person-environment fit. This study aimed to examine the relationships between reflection support from nurse managers and colleagues, and various dimensions of perceived person-environment fit (a sense of congruence with the work environment, i.e., needs-supplies, demands-abilities, person-organization, person-supervisor, person-group fit) among nurses.

Methods: A cross-sectional study was conducted from February to March 2019 using self-report questionnaires. Of the 1,082 registered nurses, assistant nurses, and midwives from three hospitals (one public and two private) who participated, the responses of 662 were included in the analysis. Multiple regression analysis was conducted, with reflection support from nurse managers and colleagues as independent variables, and needs-supplies, demands-abilities, person-organization, person-supervisor, and person-group fit as dependent variables.

Results: Reflection support from both nurse managers and colleagues was positively related to needs-supplies ($\beta = .245, .225, p < .001, < .001$, respectively), demands-abilities ($\beta = .294, .167, p < .001, < .001$, respectively), person-organization ($\beta = .276, .133, p < .001, = .002$, respectively), and person-group fit ($\beta = .154, .254, p < .001, < .001$, respectively). Only reflection support from nurse managers was positively related to person-supervisor fit ($\beta = .535, p < .001$).

Conclusion: Both nurse managers and colleagues need to provide reflection support related to each dimension of person-environment fit. Nurse managers and colleagues should encourage nurses to reflect

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on their work experiences by offering objective opinions and new perspectives.

Introduction

Person-environment fit refers to the match between the person and environment, such as job and workplace¹⁻³. It includes multiple dimensions: needs-supplies fit (the compatibility between employees' needs, preferences, or desires and their jobs), demands-abilities fit (the compatibility when employees' abilities, skills, and knowledge are commensurate with job requirements), person-organization fit, person-supervisor fit, and person-group fit (value congruence between person and organization, supervisor, and colleagues)^{2) 4}. When each dimension of person-environment fit, as assessed subjectively and directly, is high, employees have positive feelings and attitudes toward their jobs and workplaces, including low levels of turnover intention and burnout, and elicit desirable workplace behaviors^{2) 5-8}. According to a previous study, one dimension of person-environment fit was its relationship with perceived positive patient care quality among nurses⁹. Therefore, it is important to know the management factors related to high person-environment fit—specifically, support that is easy to incorporate into the clinical setting with no financial cost.

This study focuses on reflection as a factor related to person-environment fit. Reflection is a cognitive-affective process or activity (1) involving active engagement from the individual; (2) stimulated by an unusual event; (3) involving introspection about one's responses, values, and stances in view of the existing context; and (4) providing a comprehensive perspective and new insight into one's experience¹⁰. The experiential learning theory explains the cycle of concrete experience, reflective observation, abstract conceptualization, and active experimentation. In other words, reflecting on concrete experiences helps people conceptualize them as knowledge that can be used elsewhere, and these transactions take place between the person and the environment¹¹. Person-environment fit occurs

from an interaction between person and environment^{1) 2)}. Therefore, by reflecting on their workplace experiences, people can understand them more deeply and become aware of the relationships between themselves and their environments, linking person-environment fit.

Outcomes of reflection include improvement in clinical skills¹²⁾ and team performance¹³⁾¹⁴⁾, as well as confidence in and a good relationship with coaches and peers¹⁵⁾. A qualitative study¹⁶⁾ reported that when new nurses were prompted to reflect on their clinical experience with mentors, they gained "awareness of their own previously unrecognized weaknesses," "awareness of what they value most," and "relief that supporters are always there (i.e., finding commonality with them, and relief gained from supporters' presence)."

By receiving reflection support from others in the workplace, people's needs (such as needs for professional growth) and required abilities may be fulfilled or met by the work environment, related to needs-supplies and demands-abilities fit. In addition, people might perceive values of self, workplace (their organization), and staff (their supervisor and colleagues), and recognize the commonalities and similarities between self and others, related to person-organization, person-supervisor, and person-group fit. A previous study found that opportunities for professional growth influenced multiple dimensions of person-environment fit among nurses¹⁷⁾, but no studies have examined the relationship between reflection or reflection support and person-environment fit.

How do nurses receive reflection support? Reflection is prompted through various situations and tools such as dialogues, workshops, and written cases among nurses¹⁵⁾. Thus, reflection support could be a management intervention. Furthermore, employees receive reflection support from their supervisor and colleagues¹⁸⁾¹⁹⁾. Nurses receive reflection support from their nurse managers who are their supervisors, and

from colleagues, including their seniors such as chief nurses, peers, and juniors. As nurses have different relationships with their nurse managers and their colleagues, the perception of receiving reflection support from either can be distinguished, and both are important sources of such support.

In summary, receiving reflection support from nurse managers and colleagues in the workplace might be associated with the multidimensions of person-environment fit. However, regarding person-supervisor fit, reflection support from colleagues might not be relevant because individuals evaluate their value congruence with their supervisor²⁾.

Considering the possibility that younger nurses could receive more reflection support than experienced nurses based on educational strategies, and a concept characteristic of person-environment fit, personal and environmental variables should be controlled. Based on the above, two hypotheses can be formulated:

H 1: Perceived reflection support from nurse managers has positive relationships with perceived needs-supplies, demands-abilities, person-organization, person-supervisor, and person-group fit, controlling personal and environmental variables.

H 2: Perceived reflection support from colleagues has positive relationships with perceived needs-supplies, demands-abilities, person-organization, and person-group fit, but not a significant relationship with perceived person-supervisor fit, controlling personal and environmental variables.

Aims

This study aimed to examine the relationships between reflection support from both nurse managers and colleagues, and the perceived needs-supplies, demands-abilities, person-organization, person-supervisor, and person-group fit among nurses.

Specifically, it intended to quantitatively clarify whether reflection support in the workplace is effective for person-environment fit, which is expected to lead to positive psychological, attitudinal, and behavioral responses toward the job and

workplace among nurses. In other words, this study helps to clarify the source of the reflection support which is likely to have a relationship with each dimension of person-environment fit among nurses. Additionally, this study aimed to suggest actions that could be taken by nurse managers.

Materials and Methods

1. Design

A cross-sectional study was conducted, collecting data through self-report questionnaires. This study is part of a larger project examining factors related to person-environment fit among hospital nurses (including registered nurses, assistant nurses, and midwives), and some of the collected data have been analyzed in an earlier publication¹⁷⁾.

2. Participants

Participants included 1,082 nurses from three hospitals (one public and two private hospitals) with 300–500 bed capacity with acute function, located in suburban areas, selected through convenience sampling. Nurses who were absent from work during the study period and managers were excluded.

A sample size of 123 was required with a significance level of .05, test power of .80, and effect size of 0.15 according to G-power ver. 3.1.9.4. This study was part of another research project; thus, the number of participants was much larger than calculated.

3. Data Collection

Data were collected from February to March 2019. The survey items included reflection support from nurse managers and colleagues, perceived person-environment fit, personal characteristics, and the perception of operational changes that could relate to perceived person-environment fit.

4. Instruments

1) Perceived reflection support from nurse managers and colleagues

The perception of receiving reflection support from nurse managers and colleagues is important for nurses and was measured using the subscale “reflection support” of the “support

from others" scale¹⁹). The "support from others" scale includes three types of support that people receive from others in the workplace: "work support" and "emotional support" in addition to "reflection support," which were identified by explanatory factor analysis¹⁹). The reflection support scale measures the degree to which others provide opportunities to objectively reflect on work experiences and one's own way of being. The reflection support scale comprises three items (for example, "It gives me an objective opinion about myself"), to which responses are given on a 5-point Likert scale ranging from 1 ("completely disagree") to 5 ("completely agree"). The mean score of the three items was used in the analysis.

For each item, participants were asked how much support they felt they received from their nurse managers, leader nurses (i.e., nurses in leadership roles in the nursing unit), and staff nurses. Given that leader nurses and staff nurses worked together on the same shift, they were treated as colleagues. To make it easier for nurses to answer the questions, it was necessary to question leader nurses and staff nurses separately to prevent any influence, because experienced people have been reported to facilitate reflection¹⁸).

The three ratings for the nurse managers were averaged to calculate the score for perceived reflection support from nurse managers. The sets of ratings for perceived support from leader nurses and staff nurses were combined to calculate the mean score for colleagues. The Cronbach's alphas for reflection support from the nurse managers and colleagues were .92 and .90, respectively.

2) Perceived person-environment fit

Perceived person-environment fit was measured using the Japanese version of the Perceived Person-Environment Fit Scale, which includes five subscales: needs-supplies, demands-abilities, person-organization, person-supervisor, and person-group fit^{6) 20}). In this study, person-organization, person-supervisor, and person-group fit measured value congruence with their hospital, nurse manager, and colleagues in their unit, respectively. Each subscale consists

of three items and uses a 7-point scale ranging from 1 ("completely disagree") to 7 ("completely agree"). Examples of needs-supplies, demands-abilities, person-organization, person-supervisor, and person-group fit items are as follows: "There is a good fit between what my job offers me and what I am looking for in a job"; "The match is very good between the demands of my job and my personal skills"; "My personal values match my organization's values and culture"; and "My personal values match my group members' values and culture." The mean value was calculated for each subscale. The Cronbach's alphas for needs-supplies, demands-abilities, person-organization, person-supervisor, and person-group fit were .86, .84, .96, .97, and .97, respectively.

3) Covariates (personal and environmental variables)

Personal characteristics (gender, age, total years of nursing experience, employment position, qualifications, type of nursing unit [e.g., outpatient, inpatient, or operating rooms], total years in the current nursing unit, and hospital) were measured. In addition, since previous studies had reported that job and organizational changes are related to changes in person-environment fit²¹); four items measuring the perception of operational changes on a 4-point scale were developed and included. An item example is: "The hospital's manuals and rules involved in nursing duties have changed." Variable values were obtained by assigning new scores to the scale scores: 1 (for large changes) was assigned 2, 2 (for slight changes) was assigned 1, and 3 (for no change) and 4 (for unknown change) were assigned 0. For each item, the new scores were summed to obtain a value ranging from 0 to 8. Finally, the variable yielded two values: participants with scores of 4 or more (i.e., nurses experiencing many operational changes in their job) and the rest (i.e., other nurses).

5. Ethical Considerations

The nurse managers distributed the explanation document along with questionnaires to the nurses. Those who returned the questionnaire and indicated their willingness to participate therein were considered to have provided in-

formed consent. On completion, the questionnaires were sealed and placed in collection boxes that were returned to the researchers by each hospital after two weeks.

Scales were used after the authors' permission.

This study was approved by the Graduate School of Medicine, The University of Tokyo (No. 2018140NI).

6. Data Analysis

Participants who did not consent and those with incomplete data were excluded from the analysis. Descriptive statistics and Spearman's correlation coefficients were calculated. An independent t-test or a one-way analysis of variance was used to evaluate the difference in scores of reflection support and person-environment fit between covariates of categorical variables. A multiple linear regression analysis using forced entry was also conducted. Needs-supplies, demands-abilities, person-organization, person-supervisor, and person-group fit were the dependent variables; reflection support from the nurse managers and colleagues were the independent variables; gender, employment position, total years of nursing experience, type of nursing unit, total years in the current nursing unit, perception of operational changes, and hospital were the control factors. The variance inflation factor was less than 2, meaning that multicollinearity was not exhibited.

The significance level was set at $p < .05$. Data were analyzed using IBM SPSS Statistics ver. 25 for Windows.

Results

The questionnaires were administered to 1,082 participants. We received responses from 867 participants (return rate: 80.1%), of which 662 had no incomplete data, which were then analyzed (valid response rate: 61.2%).

Tables 1 and 2 show the results of descriptive statistics, independent t-test, a one-way analysis of variance, and correlation analysis. The participants had the following characteristics (values are expressed as mean \pm standard deviation): age of 33.4 ± 8.9 years, total years in nursing

experience of 9.7 ± 7.8 years, and total years in the current nursing unit of 2.8 ± 2.9 years. Additionally, 89.7% of participants were women, 90.0% had no position, 95.9% were registered nurses, 64.8% worked in inpatient units, and 48.0% perceived many operational changes.

The mean scores of reflection support from nurse managers and colleagues were 3.45 and 3.51, respectively. Regarding needs-supplies, demands-abilities, person-organization, person-supervisor, and person-group fit, the mean scores were 3.22–3.95. Spearman's correlation coefficient indicated that reflection support from nurse managers and colleagues was significantly positively related to each dimension of person-environment fit.

Further, there were differences in some scores of reflection support and dimensions of person-environment fit within the personal or environment variables such as employment position, nursing unit, operational changes, and hospital. Total years of nursing experience were weakly related to reflection support from nurse managers and colleagues.

The results of the multiple regression analysis are presented in Table 3. Reflection support from nurse managers and colleagues were significantly related to needs-supplies fit ($\beta = .245, .225, p < .001, < .001$, respectively), demands-abilities fit ($\beta = .294, .167, p < .001, < .001$, respectively), person-organization fit ($\beta = .276, .133, p < .001, = .002$, respectively), and person-group fit ($\beta = .154, .254, p < .001, < .001$, respectively), although some of the covariates were weakly related to the dimensions of person-environment fit. Only reflection support from nurse managers had a significant positive relationship with person-supervisor fit ($\beta = .535, p < .001$).

Discussion

The study results supported H1 and H2. Therefore, reflection support from both nurse managers and colleagues was positively related to needs-supplies, demands-abilities, person-organization, and person-group fit among nurses. In addition, reflection support from nurse managers was positively related to person-supervisor fit.

Table 1. Descriptive statistics and results of t-test and a one-way analysis of variance (n = 662)

Variables	n	(%)	Perceived Reflection Support [range: 1 - 5]			Perceived Person-Environment fit [range: 1 - 7]				
			From nurse managers	From colleagues	Needs-supplies fit	Demands-abilities fit	Person-organization fit	Person-supervisor fit	Person-group fit	
Gender										
women	594(89.7)		Mean	3.46	3.52	3.75	3.95	3.22	3.55	3.75
			(SD)	(1.00)	(0.79)	(1.03)	(1.00)	(1.16)	(1.29)	(1.08)
men	68(10.3)		Mean	3.36	3.45	3.52	3.97	3.24	3.38	3.69
			(SD)	(1.06)	(0.74)	(1.24)	(1.05)	(1.29)	(1.54)	(1.21)
Independent t-test			<i>p</i>	n.s	n.s	n.s	n.s	n.s	n.s	n.s
employment position										
staff	596(90.0)		Mean	3.42	3.55	3.69	3.91	3.21	3.51	3.76
			(SD)	(1.01)	(0.77)	(1.07)	(1.01)	(1.20)	(1.32)	(1.09)
senior staff ^a	66(10.0)		Mean	3.69	3.10	3.98	4.27	3.36	3.77	3.58
			(SD)	(0.91)	(0.76)	(0.92)	(0.90)	(0.98)	(1.27)	(1.08)
Independent t-test			<i>p</i>	*	**	*	**	n.s	n.s	n.s
qualification										
registered nurses	635(95.9)		Mean	3.45	3.51	3.71	3.95	3.20	3.53	3.74
			(SD)	(1.00)	(0.78)	(1.06)	(1.01)	(1.18)	(1.31)	(1.10)
assistant nurses	6(0.9)		Mean	3.50	3.67	3.94	3.67	3.28	3.22	3.89
			(SD)	(1.22)	(0.91)	(0.57)	(1.01)	(1.31)	(1.33)	(1.19)
midwives	10(1.5)		Mean	3.37	3.67	4.33	4.13	3.77	3.57	3.80
			(SD)	(1.01)	(0.81)	(0.65)	(0.82)	(0.77)	(0.82)	(0.85)
missing	11(1.7)		Mean	3.27	3.27	3.70	4.09	3.82	3.70	4.09
			(SD)	(1.56)	(1.03)	(1.13)	(0.94)	(1.29)	(1.92)	(0.94)
ANOVA			<i>p</i>	n.s	n.s	n.s	n.s	n.s	n.s	n.s
nursing unit										
outpatient and others	173(26.1)		Mean	3.26 [†]	3.46	3.64	3.87	3.15	3.27 [†]	3.67 [†]
			(SD)	(1.02)	(0.82)	(1.05)	(1.03)	(1.21)	(1.23)	(1.05)
inpatient	429(64.8)		Mean	3.54 [†]	3.55	3.74	4.00	3.30 [†]	3.66 [†]	3.84 [‡]
			(SD)	(0.98)	(0.75)	(1.05)	(0.97)	(1.15)	(1.34)	(1.10)
operating room	60(9.1)		Mean	3.29	3.36	3.84	3.81	2.83 [†]	3.39	3.27 [‡]
			(SD)	(1.06)	(0.87)	(1.07)	(1.15)	(1.18)	(1.30)	(1.02)
ANOVA			<i>p</i>	**	n.s	n.s	n.s	**	**	**
operational changes										
many	318(48.0)		Mean	3.34	3.44	3.61	3.82	3.11	3.36	3.65
			(SD)	(1.06)	(0.75)	(1.07)	(0.97)	(1.18)	(1.33)	(1.12)
others	344(52.0)		Mean	3.55	3.57	3.82	4.06	3.32	3.70	3.84
			(SD)	(0.95)	(0.81)	(1.03)	(1.01)	(1.17)	(1.28)	(1.06)
Independent t-test			<i>p</i>	**	*	*	**	*	**	*
Hospital (HP)										
HP1 (private)	313(47.3)		Mean	3.32 [†]	3.48	3.64	3.91	3.17 [†]	3.47	3.64 [†]
			(SD)	(1.01)	(0.75)	(1.08)	(1.06)	(1.22)	(1.40)	(1.11)
HP2 (public)	139(21.0)		Mean	3.35 [‡]	3.44	3.71	3.83	2.96 [‡]	3.43	3.68
			(SD)	(1.08)	(0.84)	(1.09)	(0.91)	(1.05)	(1.27)	(1.04)
HP3 (private)	210(31.7)		Mean	3.69 ^{†, ‡}	3.60	3.86	4.08	3.47 ^{†, ‡}	3.69	3.94 [†]
			(SD)	(0.90)	(0.79)	(0.98)	(0.96)	(1.14)	(1.20)	(1.08)
ANOVA			<i>p</i>	**	n.s	n.s	n.s	**	n.s	**

Note. SD, standard deviation; ANOVA, A one-way analysis of variance; a, senior staff included vice nurse managers, chief nurses, and vice chief nurses.; ** p < .01 * p < .05; n.s, non-significant; †, ‡, the categories that exists significant differences by ANOVA

Table 2. Results of Spearman's correlation coefficient (n=662)

Variable number		Mean	SD	Variable number						
				VAR1	VAR2	VAR3	VAR4	VAR5	VAR6	VAR7
Perceived Reflection Support [range: 1 – 5]										
VAR1	From nurse managers	3.45	1.01	(.92)						
VAR2	From colleagues	3.51	0.78	.47**	(.90)					
Perceived Person-Environment fit [range: 1 – 7]										
VAR3	Needs-Supplies fit	3.72	1.05	.35**	.30**	(.86)				
VAR4	Demands-Abilities fit	3.95	1.00	.36**	.24**	.62**	(.84)			
VAR5	Person-Organization fit	3.22	1.18	.35**	.25**	.56**	.45**	(.96)		
VAR6	Person-Supervisor fit	3.53	1.31	.53**	.24**	.43**	.45**	.52**	(.97)	
VAR7	Person-Group fit	3.74	1.09	.28**	.34**	.40**	.38**	.51**	.52**	(.97)
Personal variables										
VAR8	Total years of nursing experience	9.7	7.8	-.14**	-.37**	-.04	.01	-.06	-.09*	-.17**
VAR9	Total years in the current nursing unit	2.8	2.9	.01	-.16**	-.01	.08*	-.04	-.02	-.03

Note. SD, standard deviation; Cronbach's alpha reliabilities are in parentheses.; ** p < .01 * p < .05

Table 3. Results of multiple regression analysis testing relationships between reflection support and perceived person-environment fit (n= 662)

	Needs-Supplies fit		Demands-Abilities fit		Person-Organization fit		Person-Supervisor fit		Person-Group fit	
	β	p	β	p	β	p	β	p	β	p
	Perceived Reflection Support									
From nurse managers	.245	<.001	.294	<.001	.276	<.001	.535	<.001	.154	<.001
From colleagues	.225	<.001	.167	<.001	.133	.002	-.020	.614	.254	<.001
Participants' characteristics										
Gender (Ref = men)										
Women	.037	.302	-.031	.391	-.040	.274	.016	.630	-.005	.897
Employment position (Ref = staff)										
Senior staff ^a	.072	.076	.078	.052	.007	.856	.028	.454	-.013	.743
Total years of nursing experience	.086	.053	.057	.199	.095	.034	.009	.827	-.019	.663
Nursing unit (Ref = Inpatient)										
operating room	.057	.129	-.042	.257	-.073	.053	-.017	.627	-.113	.003
outpatient and others	-.015	.700	-.025	.504	-.027	.488	-.061	.080	-.020	.593
Total years in the current nursing unit	-.027	.519	.049	.238	-.079	.058	-.062	.105	-.033	.420
Operational changes (Ref = other)										
many	-.039	.290	-.087	.018	-.058	.120	-.075	.028	-.053	.153
Hospital (Ref = Hp 2 [public])										
Hp 1 (private)	-.032	.508	.065	.174	.088	.068	.027	.543	-.022	.648
Hp 3 (private)	-.004	.938	.034	.476	.147	.002	.005	.914	.061	.206
F	12.442	<.001	13.384	<.001	12.021	<.001	26.029	<.001	12.548	<.001
adjusted R2	.160		.171		.155		.294		.161	

Note. β = standardized beta coefficient; Ref = reference; R² = coefficient of determination; a, senior staff included vice nurse managers, chief nurses, and vice chief nurses.;

Thus, the more nurses perceived that they received reflection support from their nurse managers and colleagues, the more they felt that their own needs toward their jobs and supplies from jobs, their own abilities and job requirements, and their own values and the values of their institution and colleagues matched. Furthermore, the more nurses perceived that they received reflection support from their nurse managers, the more they felt that their values were congruent with those of the nurse managers.

This study is novel and valuable to show that reflection support from both nurse managers and colleagues may be related to the perceived fit of the individual nurse's job and workplace, which is necessary for nurses' positive psychology, attitude, and performance. The coefficient of determination of multiple regression analysis implied that there might be factors related to each dimension of person-environment fit other than reflection support.

Based on the idea that person-environment fit is a dynamic concept, an increasing number of recent studies are focusing on person-environment fit change within individuals²²⁾. Both personal and environmental factors might affect person-environment fit²³⁾. Therefore, it is useful for the management to identify immediate support that can be given in daily practice, such as reflection support, especially when the environment is dynamically changing.

Reflection allows people to make sense of fragmented or confusing information²⁴⁾, eventually, leading to a stage where new insights emerge and the person reflecting develops the intention to change practices²⁵⁾. Previous studies have reported that employees' voluntary changes in work resources and work demands are related to needs-supplies and demands-abilities fit²⁶⁾. When employees perceive a misfit in demands-abilities and needs-supplies at work, they try to change the environment through various ways such as job re-crafting and shaping others' behaviors or expectations²⁷⁾. Thus, reflection support from others in the workplace may encourage nurses to reflect and develop

intentions to make meaningful changes to their work in response to what is provided (resources) and required (demands) in the workplace, which may be related to needs-supplies and demands-abilities fit.

In particular, our results showed that reflection support from nurse managers had a greater relationship with demands-abilities fit than that of colleagues. As comprehensive education training has been reported to be related to demands-abilities fit²⁸⁾, the opportunities to improve employees' abilities required for the job might be related to demands-abilities fit. When reflection is promoted, knowledge is created¹¹⁾, thus; the abilities required for the job are improved¹²⁾, which may be related to demands-abilities fit. Since the competencies of nurse managers include developing the skills of nurses and undertaking strategic planning for nursing and nurses' careers²⁹⁾, they evaluate and assign tasks to the nurses. Therefore, reflection support from the nurse managers provides a clear understanding of what is expected of the nurses in the job, while also facilitating experiential learning to bring the nurses' abilities up to the required standard. Consequently, it had a stronger relationship with demands-abilities fit than that from colleagues.

In addition, reflection support helps nurses find commonality with their supporters¹⁶⁾. Therefore, when nurses received reflection support, they understood the criteria and importance of what their supporters or workplace recognized as good, that is, their values, and reconsidered the congruence of their values with their own, which may have been related to person-supervisor, person-organization, and person-group fit. However, person-supervisor fit was only related to reflection support from nurse managers. Regarding person-organization fit, employees perceive the organization through their supervisors³⁰⁾, so reflection support from their nurse managers, who are close to the organization's management, may have had a stronger relationship with person-organization fit than that from colleagues, as nurses are more likely to reconsider congruence with the organization's values. Since person-

group fit represents the conformity of values with the workgroup, the relevance brought by reflection support from colleagues who constitute the workgroup may have been strong.

While reflection support from colleagues was related to four dimensions of person-environment fit, reflection support from nurse managers was also related to a fifth dimension and tended toward a stronger relationship with almost all dimensions. In other words, nurse managers' support plays a significant role in establishing a sense of fit with their job and workplace among nurses.

1. Implications

This study indicates that reflection support may be effective in promoting perceived fit that functions importantly for nurses' psychology toward job and workplace and performance. Reflection support is an immediate and feasible support that can be implemented in clinical settings as soon as nurse managers encourage their staff to do so.

The results showed that total years of nursing experience was negatively correlated with perceived reflection support. With fewer more experienced nurses working alongside them, they may feel that they are receiving less support. Additionally, the score of perceived reflection support from nurse managers differed among hospitals. Therefore, nurse managers should provide reflection support to promote satisfactory person-environment fit at all hospitals, regardless of nurse' experience level. In addition, nurses should facilitate each other's reflections.

Reflection can occur both during and after action³¹⁾ and can also occur during group dialogue and discussion¹⁵⁾. It has been recognized that reflection support includes encouraging the deepening of thinking associated with nursing practice¹⁶⁾ and offering objective opinions and new perspectives¹⁹⁾. Therefore, nurse managers need to encourage the deepening of thinking by offering objective opinions and other reflection support to create an environment that prompts reflection among colleagues during and after nursing practice for both experienced and younger nurses. Additionally, creating a safe,

supportive, and blame-free environment is required to prompt reflection¹⁸⁾. However, since this study measured the subjective evaluation of the nurses themselves, the findings indicate that for nurses must recognize that they receive reflection.

2. Limitations

This study has several limitations. First, a causal relationship could not be established, and there is a possibility of common method bias because it was a cross-sectional study. Person-environment fit is temporal²²⁾. In the future, it is necessary to compare the extent of person-environment fit changes before and after reflection support through intervention studies.

Second, as the participants were nurses from three hospitals selected through convenience sampling, the generalizability of the results is limited. The correlation coefficient showed that nurses with more total years of nursing experience received less reflection support. Moreover, reflection support from nurse managers differed between hospitals. Given that most of the employed nurses in our country are in their 40s, followed by those in their 30s³²⁾, the participants might have been a somewhat younger group. The participants could receive more reflection support as part of their education. In the future, surveys should be conducted using a larger sample size from a more diverse array of hospitals.

Third, since this study is a subjective evaluation, it is unclear whether the nurses fit within the work environment based on objective criteria. Thus, whether others can assess improvement in nurses' person-environment fit remains to be determined, even if nurses receive reflection support.

Finally, the tendency to self-reflect while on the job and in the workplace may influence perceived reflection support and person-environment fit. Therefore, these factors should be included as covariates. It is necessary to examine person-environment fit of nurses who reflect on job and workplace by themselves, even when others do not prompt.

Conclusions

Hospital nurses who perceived that they received reflection support from their nurse managers and colleagues had higher scores on multiple dimensions of perceived person-environment fit. This finding is supported by the experiential learning theory. Both nurse managers and colleagues need to provide reflection support because the dimensions of person-environment fit are likely to be affected differently depending on the person providing reflection support.

Conflict of interests

There are no conflicts of interest to declare. This work was supported by the Policy-Based Medical Service Foundation (grant number was none).

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知覚された職場の内省支援と個人—環境適合感との関連： 病院看護職を対象にした横断研究

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キーワード

看護師長，個人—環境適合感，職場での支援，同僚，内省

要 旨

目的：看護職対象に、看護師長と同僚それぞれからの内省支援と、肯定的な職務心理や態度をもたらす個人—環境適合の5側面（欲求—供給、需要—能力、個人—組織、個人—上司、個人—集団適合）との関連を明らかにする。

方法：2019年2～3月に自記式質問紙を用いた横断研究を行った。3病院（公立1、民間2施設）1082名の看護師、准看護師、助産師を対象とし、有効回答者は662名だった。独立変数を看護師長および同僚からの内省支援とし、従属変数を個人—環境適合の5側面とした重回帰分析をした。

結果：看護師長および同僚からの内省支援の両者が、欲求—供給、需要—能力、個人—組織、個人—集団適合それぞれに正の関連があり、個人—上司適合には、看護師長からの内省支援のみ正の関連があった。

結論：看護師長および同僚の両者が、客観的意見や新たな視点を提供して仕事での経験の振り返りを援助することが個人—環境適合の各側面に重要であると示唆された。