

Workplace Environmental factors affecting Workplace Satisfaction of Novice Public Health Nurses in the Municipalities

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ABSTRACT

This study aimed to examine workplace environment that affects the workplace satisfaction of novice public health nurses (PHNs). An anonymous, self-administered questionnaire was sent to 670 PHNs working at municipalities. The survey comprised basic attributes, a comfortable workplace scale (Japanese version), and workplace satisfaction. We classified the PHNs into two groups, “novice” and “others,” based on their years of experience. We compared the scores on the comfortable workplace scale between the two groups. Multiple regression analysis was performed with workplace satisfaction as the dependent variable and comfortable workplace scale as the independent variable. Three hundred and fifty (52.2%) PHNs returned the questionnaire. Novice PHNs highly appreciated “human relations” and “work discretion” in their workplaces. The scores of novice PHNs on “career development” were significantly higher than that of the others. Workplace satisfaction in novice PHNs was improved by “human relations,” “labor load,” and “connection with society.” “Career development” affected other PHNs’ workplace satisfaction, but it did not affect the novice PHNs.

Key words: *Public health nurse, workplace satisfaction, workplace environment*

Municipal public health nurses (PHNs) are expected to provide high quality care, as they handle primary to tertiary prevention in response to rapid aging in Japan, the country with the highest ratio of elderly people in the world. PHNs’ skills are enhanced by experience⁹⁾. According to the basic survey on the activity base of PHNs in 2014⁶⁾, the most common amount of experience was less than 5 years for PHNs (20.1%). Those with less than 5 years of experience are considered “novice.” The workplace satisfaction of nurses is influenced by good relationship with colleagues, working as professionals, appreciation from the surroundings, and work discretion¹⁰⁾. That is, the workplace satisfaction of nurses is affected by the workplace environment. Nurses having a high workplace satisfaction could prevent burnout^{2, 8)} and enhance staff performance¹³⁾. However, no studies have dealt with the relationship between PHNs and work environment. A work environment that allows one to believe that his/her work has a social significance is related to PHNs’ motivation towards work¹⁵⁾. Relationships with colleagues and supervisors are known to affect workplace satisfaction¹⁸⁾. However, the factors of the work environment that affect PHNs’ workplace satisfaction are unknown. Novice PHNs are

aware of their immaturity as PHNs¹¹⁾; since negative self-evaluation can lead to burnout⁸⁾, they need supportive relationships with their surroundings. Examining the factors influencing workplace satisfaction of novice PHNs would be useful for enhancing their performance.

Therefore, this study aimed to examine the workplace environmental factors that affect the workplace satisfaction level of novice PHNs.

MATERIALS AND METHODS

1. Target Participants and Method

The subjects were 670 PHNs who worked for the municipalities in A Prefecture. First, we requested the supervising PHN in A Prefecture to cooperate in this research. Second, we requested her to introduce us to the supervising PHN of the municipality in A prefecture. There is just one in each municipality. One of their roles is human resource development. We contacted them by telephone in order to explain the purpose and method of this study. After obtaining their consent, we asked for the number of questionnaire forms required. Following this, we mailed information sheet of the research, self-addressed envelopes, and questionnaires to each

municipality. We requested the supervising PHN to hand over the information sheet, envelope, and questionnaire to the PHNs in the municipalities. The PHNs who received the questionnaires returned the questionnaire by mail using the enclosed self-addressed envelope after filling out the responses. The survey was carried out from August to November 2014.

2. Content of the survey

Regarding the basic attributes, we asked about the municipality of affiliation (prefecture, designated cities, and local government), their basic educational institution (specialty vocational school or university), presence or absence of nursing experience, number of years of public health nursing experience, whether or not the manager was a PHN, and the number of PHNs affiliated with the workplace. We also used the comfortable workplace survey (hereinafter the comfortable workplace scale)⁷⁾ developed by the Japan Industrial Safety & Health Association with the aim of understanding soft aspects (psychological, organizational, and social aspects), such as human relationships in the workplace, and evaluating the workplace environment from a broad perspective. It consists of seven areas (career development, human relationship, work discretion, salary, contribution to the society, welfare, and labor load). The contents of this scale are shown in the appendix. "Career development" includes items related to education, training, and human development. "Human relationship" includes items related to organization and management of managers. "Work discretion" asks whether the staff can proceed freely work. "Salary" includes satisfaction with the staff wages based on the management situation of the company. "Contribution to the society" includes the theme wherein the staff feels that their work is useful to the society. "Welfare" includes items of vacation system and welfare benefits. "Labor load" includes items about fatigue and stress related to the work of the staff⁷⁾. This scale has 35 items (5 items in each area), and the responses are made on a 5-point scale. The mean value for each area is considered as the score. The reference score for each area of the scale is 2.5 to 3.5. This scale indicates that the higher the score, the more comfortable the work environment. We considered that "salary" does not apply to PHNs. Therefore, we used 30 items of the 6 areas instead. In addition, we asked about the subjects' level of satisfaction with the current workplace in five stages, from "Agree" to "Do not agree," in response to the question "I am satisfied with this workplace."

3. Method of analysis

We divided PHNs into 2 groups based on their years of experience. We classified PHNs with less than 5 years of experience as "novice PHNs" and

PHNs with more than 5 years of experiences as "other PHNs." We confirmed the distribution of the basic attributes using descriptive statistics. We calculated the total score on the comfortable workplace scale and the score in each area. Next, we assumed that each area of the comfortable workplace scale affected workplace satisfaction; we confirmed Spearman's correlation coefficient. Thereafter, a stepwise multiple regression analysis was performed using the workplace satisfaction level as the dependent variable and the six areas of comfortable workplace scale as the independent variables in order to examine the areas related to workplace satisfaction. For the analyses, we used SPSS ver.22.0 for Windows, with a significance level of $p < .05$.

4. Ethical considerations

The questionnaires were anonymous, and returning the questionnaires was considered as consent to participate in this study. The research information sheet explained the purpose and method of the study, the method of protecting personal information, the voluntary nature of participation, and the disclosure of research results. Prior to conducting the study, the study was approved by Health Sciences Major, Graduate School of Biomedical & Health Sciences Research Ethics Review Board (Approval No. 26-06).

RESULTS

Of the 670 PHNs, 350 (52.2%) returned the questionnaires. Excluding subjects who did not respond to multiple items and those who were employed irregularly, we analyzed 329 questionnaires.

1. Basic attributes

Table 1 shows participants' characteristics. The number of novice PHNs was 61 and others was 238. The affiliation of the municipality was almost the same in both groups. While 90.2 % of the novice PHNs received education at a university, the proportion of other PHNs who were educated at universities was 20.2%. More than half of the novice PHNs had experienced of nurse, but other PHNs was only 25.6%. Other PHNs were assigned to workplaces with 2 or fewer PHNs (21.8%).

2. Recognition in the workplace environment based on comfortable workplace scale scores

The mean values of the comfortable workplace scale scores are shown (Table 2). Novice PHNs appreciated higher than standards in the two areas of "human relationship" (4.01) and "work discretion" (3.53). No areas fell below the reference range in both groups. Novice PHNs rated "career development" significantly higher than did other

PHNs.

3. Correlation between area of comfortable workplace scale and workplace satisfaction

Table 3 shows the results of the correlation between area of comfortable workplace scale and workplace satisfaction. A positive correlation was observed in the six areas of comfortable workplace scale in both the groups. Novice PHNs evaluated

“career development” higher than other did PHNs ($p=0.014$).

4. Factors affecting workplace satisfaction

We carried out a stepwise multiple regression analysis (Table 4). Workplace satisfaction of novice PHNs was related to “human relationship” ($\beta = 0.48$), “labor load” ($\beta = 0.28$), and “contribution to society” ($\beta = 0.26$). On the other hand, “labor load”

Table 1. Participants' characteristics

	Novice PHNs (n=61)		PHNs with more than 5 years of experience (n=238)	
	<i>n</i>	%	<i>n</i>	%
Affiliation				
Prefecture	7	11.5	31	13.0
Designated cities	27	44.3	99	41.6
Local government	27	44.3	108	45.5
Basic education				
Non-degree	6	9.8	190	79.8
Degree	55	90.2	48	20.2
Experience of registered nurse				
No	29	47.5	177	74.4
Yes	32	52.5	61	25.6
Supervisor's occupation				
PHN	37	60.7	101	42.4
others	24	39.3	137	57.6
Number of PHNs in the workplace				
Fewer than 2	4	6.6	52	21.8
3-5	12	19.7	45	18.9
More than 6	45	73.8	141	59.2

Table 2. Comparison of the mean scores of comfortable workplace scale

	Novice PHNs (n=61)		PHNs with more than 5 years of experience (n=238)		<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Career development	3.12	0.80	2.87	0.76	0.014**
Human relationship	4.01	0.81	3.84	0.73	0.062
Work discretion	3.53	0.77	3.40	0.77	0.112
Contribution to society	3.27	0.80	3.42	0.63	0.290
Welfare	3.26	0.84	3.32	0.77	0.599
Labor load	3.01	0.93	2.73	0.94	0.096

M, mean; *SD*, Standard deviation; $p < 0.001$, ***; $p < 0.05$, **; $p < 0.1$, *; Mann-Whitney *U* test
The standard score range of the scale is from 2.5 to 3.5.
Each item is rated on a scale from 1 to 5 points.

Table 3. Correlation between the area of comfortable workplace scale and workplace satisfaction

	Novice PHNs (n=61)	PHNs with more than 5 years of experience (n=238)
Career development	.461**	.458***
Human relationship	.615**	.412**
Work discretion	.471**	.422**
Contribution to society	.529**	.400**
Welfare	.394**	.242**
Labor load	.534**	.430**

Spearman's correlation coefficient; $p < 0.001$, ***; $p < 0.01$, **; $p < 0.05$, *

Table 4. Multiple regression analysis of the comfortable workplace scale and level of satisfaction

Independent variables	Novice PHNs (n=61)				PHNs with more than 5 years of experience (n=238)					
	B	SE	β	95%CI	VIF	B	SE	β	95%CI	VIF
Career development	-	-	-	-	-	0.18	0.07	0.15*	0.04 to 0.32	1.60
Human relationship	0.61	0.12	0.48***	0.38 to 0.85	1.13	0.23	0.07	0.19**	0.09 to 0.37	1.48
Work discretion	-	-	-	-	-	-	-	-	-	-
Contribution to society	0.33	0.12	0.26**	0.08 to 0.58	1.16	0.35	0.08	0.25***	0.20 to 0.51	1.32
Labor load	0.31	0.10	0.28**	0.10 to 0.51	1.22	0.35	0.05	0.38***	0.26 to 0.45	1.10
R ²	0.57				0.45					

SE, Standard Error; CI, Confidence interval; p<0.001, ***; p<0.01, **; p<0.05, *

($\beta = 0.38$), “contribution to society” ($\beta = 0.25$), “human relationship” ($\beta = 0.19$) and “career development” ($\beta = 0.18$) affected other PHNs’ workplace satisfaction. “Career development” did not affect the workplace satisfaction of novice PHNs.

DISCUSSION

1. Recognition of workplace environment

Novice PHNs stated that “human relationships” and “Work discretion” are comfortable. This suggests that the workplaces where the novice PHNs belonged had smooth human relationships and they could express their own opinion. As Campbell et al.³⁾ has suggested, the presence of a supervisor with whom one can discuss ways to handle the work and provides positive feedback can increase the level of work satisfaction, it was suggested that PHNs’ workplace satisfaction is strongly influenced by the supervisor. As Sveinsdottir¹⁷⁾ has stated, nursing administrators can increase the positive feelings of the staff by approving the staff’s behavior specifically. As novice PHNs receive specific approval for their activities from a supervising PHN who has a practical grasp on the activities of a PHN, this can help reduce anxiety in novice PHNs. Hori⁴⁾ and Yoder¹⁹⁾ has stated that the supervisors and senior staffs that the workers meet at the beginning of their careers have an important influence on their subsequent lives and careers. It was suggested that for novice PHNs, a supervising PHN is beneficial in helping PHNs shape their careers.

2. Workplace environment affecting workplace satisfaction

The difference between novice PHNs and others was the presence or absence of “career development” and the influence of the “human relationship” and “labor load.” Regarding “human relationship,” for nurses, the lack of support from colleagues is the greatest stress factor¹³⁾. Interpersonal aid workers have stated that support from colleagues and approval from clients strongly affects the level of satisfaction⁵⁾. In order to enhance the workplace satisfaction of novice PHNs who feel immature as

a PHN, support from supervisors and peers is important. As Schön¹⁶⁾ has suggested, approval from colleagues encourage reflection of a worker’s activities and leads to confidence; it is, therefore, important for colleagues to be supportive consciously by identifying the strengths of the novice PHNs and vocalize them. Furthermore, the item “labor load” was considered to represent the current situation of PHNs in Japan. According to a survey in 2014⁶⁾, since 2010, there has been a significant increase in the proportion of PHNs who consider their workload to be high, and it was also reported that cases and work being handed to them have become more complex. Ozyurt¹²⁾ also stated that labor load affects work satisfaction, while Abu-Bader¹⁾ found that excessive workload and complication of work content reduce workplace satisfaction and cause burnout. We think that it is necessary to monitor the work volume and content to prevent burnout of PHNs due to exhaustion.

Meanwhile, only other PHNs being affected by “career development” represents the current state of the arrangement. Because they are assigned to departments with few PHNs, it is difficult to participate in the training they want to receive. In addition, the career ladder of PHNs had just been created in 2016, and the training of other PHNs has not been established. Therefore, staffs may not think that other PHNs need training.

Conclusions

Workplace satisfaction of novice PHNs was found to be affected by the relationship with staffs, work content that enables them to feel connected with the society, and labor load. Based on this, it would be effective for novice PHNs to participate in activities that enable them to perceive their contribution to the society, through appropriate workload and interaction with the residents under the supervision of PHNs.

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Appendix: The Comfortable Workplace Scale

	Japanese	English
キャリア	1 意欲を引き出したり、キャリアに役立つ教育が行われている	My workplace provides education for motivation and career development.
	2 若いうちから将来の進路を考えて人事管理が行われている	Personnel management in my workplace is carried out considering the future career paths.
	3 グループや個人ごとに、教育・訓練の目標が明確にされている	My workplace goals have been clarified for each group and individual.
	4 この職場では、誰でも必要な時に必要な教育・訓練がうけられる	My workplace provides the necessary education and training.
	5 この職場では、従業員を育てることが大切だと考えられている	Fostering employees is considered important in my workplace.
人間関係	6 上司は、仕事に困ったときに頼りになる	My supervisor is reliable when I have a trouble at work.
	7 上司は、部下の状況に理解を示してくれる	My supervisor understands the situation of his subordinates.
	8 上司や同僚と気軽に話ができる	I can speak freely with my supervisor or colleagues at my office.
	9 この職場では、上司と部下が気兼ねのない関係にある	The supervisor and members have a friendly relationship.
	10 上司は、仕事があまく行くように配慮や手助けをしてくれる	My supervisor helps me to work proceeds smoothly.
仕事の裁量性	11 自分の新しいアイデアで仕事を進めることができる	I can work with my own ideas.
	12 仕事の目標を自分で立て、自由裁量で進めることができる	I can work freely towards my goal.
	13 自分のやり方と責任で仕事ができる	I can work based on my own ways and responsibility.
	14 仕事の計画、決定、進め方を自分で決めることができる	I can plan, judge, and proceed with my own work.
	15 自分の好きなペースで仕事ができる	I can work at my own pace.
社会とのつながり	16 自分の仕事は、よりよい社会を築くのに役立つ	My work is contributing towards making the society better.
	17 自分の仕事が、社会と繋がっていることを実感できる	I can feel that my work is connected to the society.
	18 自分の仕事は、世間から高い評価を得ている	My work is highly appreciated by the society.
	19 自分の仕事に関することが、新聞やテレビによくでる	Happenings about my work are often reported on TV and newspapers.
	20 今の職場やこの仕事にかかわる一員であることに、誇りを思っている	I am proud of being a member of this workplace.
福利厚生	21 この職場には、世間よりも長い夏季休暇や年次休暇がある	My workplace has a longer duration of leave than other workplaces.
	22 この職場では、産休、育児休暇、介護休暇がとりやすい	It is easy to take maternity leave, childcare leave, and nursing care leave in my workplace.
	23 この職場では年次有給休暇を取りやすい制度や雰囲気がある	My workplace has a system or environment that makes it easier to obtain paid leave.
	24 この職場には、心や身体の健康相談にのってくれる専門スタッフがいます	My workplace has staffs for health consultation.
	25 心や身体の健康相談のために、社外の医療機関などを気軽に利用できる	I can easily visit the hospital for health consultation at my workplace.
労働負荷	26 仕事はいつも時間内に処理できる	I always can finish my work within the working hours.
	27 全体として仕事の量と質は、適当だと思う	I think the content and quantity of my work is appropriate.
	28 残業、休日、休暇を含めていまの労働は適当だと思う	I think that my work is appropriate, including overtime and holidays.
	29 翌日までに仕事の疲れを残すことはない	I do not leave fatigue of work until the next day.
	30 家に仕事をもち帰ったことはめったにない	I rarely bring my work home.

Researchers translated the questions into English.