Original Paper

A Study on Typology of Career Support in Hospitals and Analysis of Characteristics of Medical Institutions

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Abstract

   In this paper, we focused on professional career development in hospitals. The purpose of this study is to analyze advanced examples of career support and to identify the implementation status of career support. Based on advanced case studies, we categorized the phases of career support in medical institutions. Then, we examined the current status and issues of career support from the perspective of the individuality of the medical institution, such as the function of the hospital bed and the establishment organization. As a result, we were able to first classify the career support provided by medical institutions into five categories: "support for WLB", "support for continuing learning", "career clarification", "support for skill development" and "management by objectives". Furthermore, when compared by hospital characteristics, it was found that there were significant differences in the current status of the initiatives depending on bed functions and establishing organizations.

1. Introduction

   In Japan, the aging rate (the ratio of the senior citizen population older than 65 years old to the total population) is rising. In 2020, we reached a society with 28.9% aged[1], and the medical services that senior citizens use is increasing. However, healthcare organizations are struggling to cope with the growing global shortage of healthcare professionals[2-5]. As the demand for medical services increases and the needs also diversify, expected roles for healthcare providers are rising. In order to continuously provide high quality medical services, it is essential to secure and train medical personnel. Efforts to retain the existing workforce are negatively influenced by factors such as the chronic staffing shortages, higher patient acuity, and increasing patient caseloads[6-8]. Furthermore, it has been shown that career support, especially for women, can help prevent turnover[9]. The challenge is to provide systematic support for professional career development.

   Backed by such present conditions, this paper draws attention to professional career development at hospitals. The purpose of this study is to analyze advanced examples of career support and to identify the implementation status of career support. We will use case studies to categorize the phases of career

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support in medical organizations. Then, we will look at the current status and issues of career support from the perspective of the individuality of medical organizations such as bed functions and establishing organizations. In this study, we will perform:

(1) Coding of textual data of a case study

(2) A presentation of a "career support standard" for hospitals

(3) An analysis of basic characteristics in relation to the "career support standard"

with the hope of identifying the current status of career support in hospitals.

2. Methods

2.1 Subjects and methods

In this paper, we conducted a survey of case studies. The survey covers all cases with descriptions of career support posted on the "Iki Iki Working Medical Institution Support Web"[10]. This is a website established by the Ministry of Health, Labour and Welfare. The site introduces national and government policies and projects, as well as case studies of medical institutions, for managers and administrators of medical institutions. It also provides useful information for improving the working environment of medical workers. 52 cases (Referenced in January 1, 2021) were collected and included in the analysis.

2.2 Method of Analysis

First, we coded the textual data of 52 cases. We analyzed the contents one case at a time. According to the career support code, we coded it as "1" if it was in place and "0" if it was not (Table 1). Secondly, to get the standard of professional career development, we performed a factor analysis for the coded data by using principal component analysis by promax rotation. Thirdly, we performed an analysis of the difference of career support according to the individual characteristics of each hospital. To do this we calculated the mean of the standard score according to the individual characteristics and compared the mean by the overall characteristics. One-way analysis of variance was used to compare the means. Fisher's LSD post-hoc test was used for posteriori comparison. In this study, IBM SPSS Statistics (Version 25) was used for the statistical analysis, and the significance level was defined as less than 5%. However, for Fisher's LSD post-hoc test, a value of less than 10% was considered significant.

Table 1   Coding of the case study texts

	Code 1	Code 2	Code 3	· ·	Code 12
Case 1	0	1	1	· ·	0
Case 2	1	0	1	· ·	1
:	:	:	:	· ·	
Case 52	1	0	0	· ·	1

3. Results

3.1 Career support code

The text data were classified into 12 codes in Table 2. The results showed that 61.5% of the hospitals were involved in "Support for participation in training outside the facility". In addition, 57.7% of the hospitals were involved in "Provision of information on workshops". Furthermore, 48.1% of hospitals were working on "Consultation desk on balancing childcare and work".

3.2 Constituent factors of the career support standard

A factor analysis of 12 items of the Career Support scale was performed using principal component

analysis by promax rotation. Factors were derived according to the following conditions: the accumulation contribution rates were more than 50% with the eigenvalue higher than 1 and the factor loadings more than 0.5. The results are shown in Table 3.

We derived the 5 factors indicated below in the career support scale at hospitals.

Table 2 Fundamental statistics of case codes

	Career support codes	n	M	SD
1	Support for participation in training outside the facility	52	0.615	0.491
2	Promotion to conference presentations	52	0.173	0.382
3	Provision of information on workshops	52	0.577	0.499
4	Consultation desk on balancing childcare and work	52	0.481	0.505
5	Promotion of qualification acquisition	52	0.173	0.382
6	e-learning while on leave	52	0.115	0.323
7	Post-leave workshop	52	0.173	0.382
8	Short-term system for official staff	52	0.212	0.412
9	Contracted staff system for the term of business	52	0.173	0.382
10	Management by objectives	52	0.173	0.382
11	Create a career path	52	0.192	0.398
12	Promotion of participation in study sessions in the hospital	52	0.135	0.345

Table 3 Factor analysis results for career support

	factor loading				
	1	2	3	4	5
	support for WLB	support for continuing learning	career clarification	support for skill development	management by objectives
Contracted staff system for the term of business	0.931	-0.117	-0.098	-0.258	-0.008
Post-leave workshop	0.888	-0.219	-0.155	-0.273	-0.462
Short-term system for official staff	0.888	-0.103	-0.147	-0.293	0.019
e-learning while on leave	0.706	-0.459	-0.083	-0.230	-0.539
Provision of information on workshops	-0.190	0.898	0.028	-0.028	-0.108
Support for participation in training outside the facility	-0.243	0.875	0.007	0.223	-0.237
Consultation desk on balancing childcare and work	0.074	0.770	-0.301	-0.032	-0.005
Create a career path	-0.108	-0.152	0.801	0.015	0.120
Promotion of participation in study sessions in the hospital	-0.113	-0.015	0.763	0.053	0.127
Promotion of qualification acquisition	-0.225	0.013	-0.204	0.830	0.203
Promotion to conference presentations	-0.263	0.100	0.378	0.795	-0.225
Management by objectives	-0.037	-0.271	0.177	-0.021	0.829
Factor contribution rate	28.176	20.605	11.581	9.949	8.499
Accumulation contribution rates	28.176	48.781	60.362	70.312	78.810

3.2.1 Factor 1: support for WLB

Factor 1 evaluates support for balancing work and family life, which is interpreted as "support for WLB" and consists of 4 questions, including "Contracted staff system for the term of business" and "Post-leave workshop".

3.2.2 Factor 2: support for continuing learning

Factor 2 evaluates continued support for learning, such as training and childcare counseling, which is interpreted as "support for continuing learning" and consists of 3 questions, including "Provision of information on workshops" and "Support for participation in training outside the facility".

3.2.3 Factor 3: career clarification

Factor 3 evaluates continued clearly identified careers of staff members, which is interpreted as "career clarification" and consists of 2 questions, including "Create a career path" and "Promotion of participation in study sessions in the hospital".

3.2.4 Factor 4: support for skill development

Factor 4 evaluates provided support to improve skills by giving qualifications and conference presentations, which is interpreted as "support for skill development" and consists of 2 questions, including "Promotion of qualification acquisition" and "Promotion to conference presentations".

3.2.5 Factor 5: management by objectives

Factor 5 evaluates provided staff with a sense of purpose, which is interpreted as "management by objectives" and consists of 1 question, including "goal management system".

3.3 Relationships between the career support standard and the characteristics of the subject groups

We performed an analysis of the difference of Career Support according to the individual characteristics of each hospital such as the type of bed functions and establishing organizations. To do this we calculated the mean of the standard score according to the individual characteristics and compared the mean by the overall characteristics.

3.3.1 First characteristic: type of bed function

We observed a significant difference of the mean (Table 4) of the standard score according to the types of bed function. There was a significant difference among chronic stage function, acute stage function and advanced acute stage function in the "support for continuing learning" and we found that chronic stage function, compared with acute stage function and advanced acute stage function, performed "support for continuing learning" more actively.

There was a significant difference in "career clarification" among chronic stage function and acute stage function and we found that chronic stage function has an activity "career clarification" more than acute stage function. In addition, there was a significant difference between chronic stage function, and acute stage function for "support for skill development" and we found that chronic stage function has an activity "support for skill development" more than acute stage function.

Table 4   The mean of the standard score according to the type of bed function

		support for WLB	support for continuing learning	career clarification	support for skill development	management by objectives
	n	mean	mean	mean	mean	mean
Chronic stage function	11	-0.218	0.436 [ab]	0.487 [a]	0.455 [a]	-0.353
Convalescent stage function	5	-0.027	0.613	-0.072	0.398	-0.254
Acute stage function	30	0.058	-0.136	-0.179	-0.179	0.147
Advanced acute stage function	6	0.133	-0.629	0.062	-0.271	0.123

[a]: Significantly different compared with Acute stage function by Fisher's LSD test (p<0.1). [b]: Significantly different compared with Advanced acute stage function by Fisher's LSD test (p<0.1).

3.3.2 Second characteristic: establishing organizations

We observed a significant difference of the mean (Table 5) of the standard score according to each establishing organization. There was a significant difference among local government, medical corporations and others in the "support for continuing learning," and we found that medical corporations and others, compared with local government, performed "support for continuing learning" more actively.

There was a significant difference in "support for skill development" among local government, public organizations and medical corporations and we found that medical corporations have an activity "support for continuing learning" more than local government and public organizations.

Table 5   The mean of the standard score according to establishing organizations

	n	support for WLB	support for continuing learning	career clarification	support for skill development	management by objectives
		mean	mean	mean	mean	mean
National government	3	0.489	0.121	-0.493	-0.553	-0.508
Local government	9	0.305	-0.545 [ab]	0.237	-0.384 [a]	-0.301
Public organizations	4	-0.319	-0.035	-0.543	-0.548 [a]	-0.026
Social insurance bodies	2	-0.545	-0.788	-0.715	0.369	-0.003
Medical corporations	26	-0.047	0.152	0.150	0.359 [b]	0.028
Others	8	-0.078	0.289	-0.120	-0.345	0.453

[a]: Significantly different compared with Medical corporations by Fisher's LSD test (p<0.1). [b]: Significantly different compared with Others by Fisher's LSD test (p<0.1).

4. Discussion

We coded 52 cases of text data. As a result, we found that about half of the case study hospitals were working on career support such as "Support for participation in training outside the facility", "Provision of information on workshops" and "Consultation desk on balancing childcare and work". On the other hand, we found that "promotion of participation in study sessions in the hospital" and "e-learning while on leave" were not well implemented. In the future, it is suggested that "promotion of participation in study sessions in the hospital" and "e-learning while on leave" need to be strengthened as career support for hospital professionals.

As a result of factor analysis, five factors, "support for WLB", "support for continuing learning", "career clarification", "support for skill development" and "management by objectives", were extracted.

These career supports were consistent with the contents of "improvement of comfortable working environment" and "improvement of job satisfaction" among "improvement of employment quality" in the "management system for improvement of working environment" indicated by the Ministry of Health, Labour and Welfare[11].

We then examined the current status of career support by hospital bed functions and establishing organizations. As we have seen above, the "support for continuing learning", "career clarification" and "support for skill development" of chronic stage function are more active than other types of bed function.

Hospitals with chronic stage functions are in a situation of shortage of staff, especially nurses. Therefore, it can be inferred that this is the background to the various efforts that have been made to secure and retain staff.

Moreover, we found that the "support for continuing learning" and "support for skill development" of medical corporations are more active than local government. Ikeda said, "Major medical corporation groups

make a lot of effort to train their management staff"[12]. It was suggested that medical corporations are actively engaged in career education for their staff.

5. Conclusion

In this study, we analyzed the advanced practices of hospitals regarding career support. As a result, we found that the following five advanced initiatives are currently being implemented in hospitals. They are "support for WLB", "support for continuing learning", "career clarification", "support for skill development" and "management by objectives". Furthermore, we found that chronic stage function has more activity with "career clarification" than the acute stage function. In addition, we found that medical corporations have more activity for "support for continuing learning" than local government and public organizations.

References

1. Organization for Economic Co-operation and Development : *Demographic references: Population age structure*.
   https://stats.oecd.org/index.aspx?queryid=30130, 2020. (September 1, 2021)

2. Kuhlmann E, Batenburg R, Groenewegen PP and Larsen C : Bringing a European perspective to the health human resources debate: A scoping study. *Health Policy*, 110(1), 6-13, 2013.

3. Kroezen M, Dussault G, Craveiro I, Dieleman M, Jansen C, Buchan J, Barriball L, Raffert M, …Sermeus W : Recruitment and retention of health professionals across Europe: A literature review and multiple case study research. *Health Policy*, 119(12), 1517-1528, 2015.

4. World Health Organization : *Health workforce requirements for universal health coverage and the sustainable development goals*. (Human Resources for Health Observer, 17)
   https://apps.who.int/iris/handle/10665/250330, 2015.

5. Scheffler RM and Arnold DR : Projecting shortages and surpluses of doctors and nurses in the OECD: What looms ahead. *Health Economics, Policy and Law*, 14(2), 274-290, 2019.

6. Canadian Nurses Association : *Tested solutions for eliminating Canada's registered nurse shortage*.
   https://www.cna-aiic.ca/-/media/cna/page-content/pdf-en/rn_highlights_e.pdf, 2009. (September 1, 2021)

7. Sanavely TM : Data watch: A brief economic analysis of the liming nursing shortage in the United States. *Nursing Economic$*, 34(2), 98-100, 2016.

8. Unruh LY, Raffenaud A and Fottler M : Work-family conflict among newly licensed registered nurses: A structural equation model of antecedents and outcomes. *Journal of Healthcare Management*, 61(2), 129-145, 2016.

9. Gregg MF, Hattori K, Yamamoto K, Arisue R, Nakamura F, Ikeda Y, Iwanaga J and Hamamoto K : Support for career development of clinical nurses based on organizational commitment. *Bulletin of Kobe City College of Nursing*, 13, 21-28, 2009. (In Japanese)

10. Ministry of Health, Labour and Welfare : *Iki Iki Working Medical Institution Support web*.
    https://iryou-kinmukankyou.mhlw.go.jp/casestudy, 2015. (January 1, 2021) (In Japanese, translated by the author of this article)

11. Survey and Research Team for Establishing Methods to Improve the Working Environment of Medical Personnel : *Improving the "Quality of Employment" in the Medical Field Work Environment Improvement Management System Introduction Guide*.
    https://www.mhlw.go.jp/seisakunitsuite/bunya/kenkou_iryou/iryou/quality/dl/houkokusyo-03.pdf, 2014. (September 1, 2021) (In Japanese, translated by the author of this article)

12. Ikeda K : Building a career path for office managers: Necessity of career path and personnel evaluation. *Byouin Rashinban*, 192, 11-16, 2021. (In Japanese)