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Fulbright Research Project Summary

Hospital Implementation of Work-Life Balance Programs and Nurse Stress, Work-Family Conflict, and Work Satisfaction in Ibaraki Prefecture

INTRODUCTION

In 2006, the International Council of Nurses identified a global shortage of nurses. Inadequate human resources planning and management, high attrition due to poor work environments, low professional satisfaction, and low remuneration are just some of the leading causes of this epidemic. (ICN 2006) Japan is not immune to this problem: in a recent report, the Japanese Nursing Association (JNA) identified "a chronic shortage of nurses both in terms of quality and quantity" (Nursing in Japan 2011).

In searching for solutions to this problem, many past studies around the world have focused on nurses and the relationship between their workplace stressors, ways of coping, and demographic and workplace characteristics. For Japanese nurses, workload and the number of people in the household has been found to be negatively associated with physical health, while lack of support at work and escape-avoidance as a way of coping were negatively associated with mental health. Lower mental health was likewise associated with a higher likelihood of leaving their current nursing position. (Lambert et al. 2004) Nursing has been found to be a particularly arduous occupation in more rural areas, where nurses face stresses such as isolation, high workload, and poor management due to lack of resources (Lenthall et al. 2009), although limited research on the effect of hospital setting on nurses has been conducted in Japan.

The situation is not entirely grim for Japan. The period from 2007 to 2011 saw a decrease in the nurse turnover rate, a change that the JNA attributed to the improvement in working conditions and the implementation of the continuing education system in a growing number of hospitals. In recent years, more attention has also been given to employees' work-life balance (WLB), and the government amendments to the Child Care and Family Care Leave Law (CCFC Leave Law) were expected to decrease the nurse turnover rate even further. (JNA 2013) However, while the most recent JNA report has shown that in 2012 the nursing turnover rate may have stabilized both for full-time employed nurses and for recent graduates just entering the nursing job market (JNA 2014), the situation looks quite different when considering prefectures individually.

In 2013, Ibaraki prefecture reported a much lower number of nursing professionals per 100,000 of population than the national average. Moreover, between 2010 and 2012, the nurse turnover rate in Ibaraki has increased from 8.6% to 9.9% for full-time nurses and from 4.8% to 9.9% for recent graduates. (JNA 2014) This alarming trend suggests that there may be factors, such as a stressful work environment and a lack of support systems, that are contributing to greater job instability in the supply of labor among younger nurses. Furthermore, the resources that

hospitals could be spending on improving quality of health care for their patients, particularly in areas with greater shares of vulnerable populations such as the elderly or rural residents, are instead being spent on the recruitment and training of personnel to replace the overworked nurses. It is thus of utmost importance to identify ways in which nurses' work stress can be alleviated to help foster a more productive work environment, a more balanced lifestyle, and better provision of health care services.

The study conducted under this Fulbright grant seeks to identify what relationship, if any, there is between the WLB programs, as outlined by the CCFC Leave Law, and nurse stress, work-family conflict, and job satisfaction in Ibaraki Prefecture, and how this may differ based on hospital location (urban vs. rural). The study also looks at the relationship between social support and coping strategies and related nurse characteristics. Finally, based on the free responses received from the nurses, the study identifies several common themes for the specific stresses with which nurses reported to be dealing at the time of the study.

METHODOLOGY

Hospital survey

The first survey of this project was sent to all 187 hospitals in Ibaraki prefecture, asking which of the 24 programs, if any, outlined by Japan's CCFC Leave Law were currently implemented and were used by employees at their respective workplace. The 24 programs outlined by the CCFC Leave Law can be classified into five groups:

- Child Care Support Programs,
- Preschool Child Care Support Programs,
- School-age Child Care Support Programs,
- Family Care Support Programs,
- and Other Family Care Support Programs.

The survey likewise asked about the implementation of 26 other programs not outlined by the CCFC Leave Law. Two rounds of surveys were sent out to hospitals to increase the participation rate, the first at the beginning of January 2014 and the second at the beginning of February 2014. The second round of surveys was only mailed to hospitals that did not respond in the first round.

Nurse survey

Based on the results of the first survey, six hospitals were selected to participate in the second survey of nurses. An individual meeting was set up with either the head of the nursing department or the head administrator at each hospital to explain the objective and the format of the survey, and permission to conduct the nurse survey at the hospital was verbally confirmed

either during the meeting or over the phone in a follow-up call. Participation requests ranged from 20 nurses to 65 nurses, depending on the size of the hospital's nursing staff.

Following the meeting, survey packets—each containing a handout explaining the purpose of the survey, a survey, and a mail-back envelope—were mailed in bulk to the hospitals. The contact person at each hospital then distributed the survey packets to the nurses at their discretion. Participation was anonymous and completely voluntary, and nurses were only asked to provide the name of the hospital where they currently worked. Completed surveys were returned by mail.

Aside from demographic data, the survey measured the following nurse characteristics:

- stress related to work/role execution and role ambiguity,
- intergroup conflict and intragroup conflict,
- quantitative workload,
- variance in workload,
- mental stress and workload,
- feeling of responsibility toward others at work,
- social support (from supervisors, from other nurses, and from friends and family),
- stress-coping strategies (problem-solving, emotional coping, and escape-avoidance),
- work-family conflict,
- and work satisfaction (with one's work overall; with one's position in the workplace; with one's relationship with doctors and supervising nurses, and with one's relationship with other staff nurses).

This study received IRB approval from the University of Tsukuba.

RESULTS

Hospital survey

The survey was sent to all 187 hospitals in Ibaraki Prefecture, and a total of 70 surveys were received, for a final response rate of 37.4%.

Hospitals in the sample on average implemented 5.62 Child Care Support Programs (out of 6 programs outlined by the law), 2.54 Preschool Child Care Support Programs (out of 5), 1.75 School-age Child Care Support Programs (out of 5), 2.69 Family Care Support Programs (out of 3), and 1.84 Other Family Care Support Programs (out of 5). Out of the 26 programs not outlined in the CCFC Leave Law, hospitals on average implemented 15.93 programs at their workplace.

Hospitals tended to place the most priority on the implementation of Child Care Support Programs: 77.1% of the hospitals had implemented all six programs outlined by the CCFC Leave Law. The next most prioritized programs were the Family Care Support Programs, all of which were implemented at 72.9% of the hospitals. On the other hand, hospitals implementing all of the

Preschool Child Care Support Programs, School-age Child Care Support Programs, and Other Family Care Support Programs made up only 8.6%, 7.1% and 7.1% of the sample, respectively.

For each implemented program, hospitals also reported whether any nurses had used the program recently. Out of hospitals with Child Care Support Programs, the share of hospitals reporting program participation by nurses varied from 44-90% depending on the program. On the other hand, out of hospitals with Family Care Support Programs, the share of hospitals reporting that their nurses were *not* using an implemented program, even though there appeared to be those who were eligible to use it, was relatively stable between 40 and 48 percent. In regard to the use of Preschool Child Care Support Programs, School-age Child Care Support Programs, and Other Family Care Support Programs, the large proportion of the hospitals that did not answer the question (between 20% and 76%, depending on the individual program) made it difficult to draw a conclusion on utilization of these programs by nurses.

Over the 2013 year, hospitals in the sample reported an average nurse turnover rate of 6.82 percent. This is considerably lower than the 2012 nurse turnover rate reported by the JNA, which suggests that there was some response bias in the group of hospitals that responded to the first survey. The highest average turnover rate was in the Kogo/Bando region (8.42%) and the lowest average turnover rate was in Rokko (3.70%). When asked how they thought the number of nurses leaving work at their hospitals compared to that number at other hospitals in the prefecture, 36.4% said that they considered it to be average, 33.3% thought it was less than at other hospitals and 7.6% thought that the number of nurses resigning from work at their hospital was greater than that at other hospitals. 13.6% did not think either way, and 9.1% did not know.

Finally, the survey asked hospitals to give a subjective score on how highly nurses' WLB was prioritized in the workplace by the administration. Rated on a ten-point scale (1 = lowest priority, 10 = highest priority), the lowest average priority score was recorded in the Rokko region (5.50) while the highest was reported by the hospitals in Hitachiota/Hitachinaka (7.20). The average priority score of nurses' WLB in Ibaraki Prefecture was 6.78.

Looking at the relationship between the nurse turnover rate and WLB program implementation, WLB program use and WLB prioritization in the workplace, nurse turnover rate was not found to be correlated with any of these variables. Hospitals placing higher priority on employees' WLB tended to implement more Preschool Child Care Support Programs and were more likely to report these programs in use by their nurses. However, WLB prioritization was not found to be correlated with the implementation or use of any other type of programs.

The study also considered the relationship between hospital setting (urban vs. rural) and program implementation, program use, and the nurse turnover rate. The cut-off point between urban and rural hospitals was set as 2.5 kilometers walking distance from the nearest train station by foot, with hospitals that were more accessible by public transportation (closer than 2.5 km)

being coded as urban, and those less easily accessible (2.5 km or further away) being coded as rural.

Rural hospitals on average had a higher turnover rate and a greater number of Child Care Support Programs implemented at their workplace, while urban hospitals reported higher WLB priority scores and a greater number of all other WLB programs. However, none of the differences between the two groups were shown to be statistically significant. Further research should explore these and other differences that may exist between hospitals located in urban vs. rural areas.

Nurse survey

A total of 288 surveys were sent out to the six hospitals participating in the second nurse survey, and 173 were mailed back, for a response rate of 60.1%. The sample consisted of 159 female and 14 male nurses between 21 and 67 years of age (mean age of 38.59 years). Experience working at their current location ranged from 9 months to 48 years, with an average of 15.71 years. 43 nurses reported not being married, 118 reported being currently married, and 12 reported being either separated, divorced or widowed. 109 nurses (63.4%) reported having at least one child, and the average number of children in the entire sample was 1.25 children. Among nurses with children, the average number of children was 1.92, with 45.0% of nurses reporting having two children in the family. The next largest group (25.7%) was nurses with one child in the family.

46.2% of nurses reported that they had either received treatment or had a health exam in the last year, and on average nurses self-scored their health to be 3.35 (slightly above average) on a 5-point scale (1=very unhealthy, 5=very healthy). 19.85% of nurses reported to be currently smoking, 20.3% of nurses had smoked in the past but did not anymore, and 59.9% of nurses had never smoked. 37.8% of nurses, the largest group in the sample, reported that they never drank alcohol, while 7.0% of the sample reported drinking every day.

Preliminary analysis of the data has identified several clear connections between various nurse characteristics. Nurses reporting high stress associated with work/role execution were more likely to report high stress associated with role ambiguity. They also reported a greater number of intergroup conflicts (with doctors and supervisors) and intragroup conflicts (with other nurses and staff members) and a more severe variance in workload. Greater mental stress was associated with greater stress from work/role execution and more frequent intergroup conflicts. Nurses reporting greater workload quantity and more severe variability in work were also more likely to report a higher degree of mental stress. Nurses who felt more responsibility for other people at work and who suffered from more stress from work/role execution likewise reported higher mental stress scores.

Nurses who reported greater stress from work/role execution tended to cope with their problems via escape-avoidance. Nurses reporting higher stress from role ambiguity however

tended to favor problem-solving and emotional coping strategies. Greater social support from supervisors and coworkers was strongly correlated with fewer intergroup and intragroup conflicts as well as lower stress from work/role execution and role ambiguity, and lower variability in workload. Nurses reporting greater social support from supervisors likewise reported lower workload quantity and associated stress.

The vast majority of stress factors (stress related to work/role execution and role ambiguity, intergroup and intragroup conflict, quantitative workload, and variance in workload) had a significant negative association with all aspects of work satisfaction. Contrary to expectation, mental stress did not have a significant association – positive or negative – with nurses' work satisfaction. Satisfaction in one aspect of work was positively correlated with satisfaction in other areas of work, so nurses reporting higher satisfaction in one area were more likely to report higher satisfaction in all areas of their job.

Overall, stresses described by nurses in written comments could be classified into 10 categories: intergroup conflicts, intragroup conflicts, work role (ex. not being able to work in one's preferred ward), workload and responsibility, training and non-medical responsibilities, low salary, patient-related, work-family conflict, family stress, and other. These findings are consistent with those in previous literature on nurses' work stress.

CONCLUSION

This cross-sectional study examined the implementation and use of WLB programs in hospitals across Ibaraki Prefecture. Various sources of stress as well as relationships between stress and nurse characteristics were identified via an anonymous nurse survey. I do not find a strong association between the nurse turnover rate and WLB program implementation, WLB program use, or the prioritization of nurse WLB in the workplace. I do find that hospitals that place a higher priority on nurses' WLB are more likely to implement certain types of WLB programs and to report nurses using them. The nurse survey reveals that greater social support from supervisors and coworkers is strongly correlated with fewer workplace conflicts as well as lower scores on various stress scores. Analysis of the association between nurse stress scores and WLB program implementation/use is ongoing. Further research can reveal valuable insights for how Japan and other countries can decrease the nurse turnover rate and alleviate the shortage of health care personnel by helping nurses achieve desired balance between work and family and increase work satisfaction.

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