



# The Relationship Between Work-Life Balance And Nwi-R Score Among Unmarried Nurses Working For Less Than Two Years In Hospital.

*Kazuya Ikenishi<sup>1</sup>, Junpei Matsuura<sup>2</sup>*

<sup>1</sup>Lecturer, School of Nursing, Aichi kiwami Nursing College, Ichinomiya city, Aichi prefecture, Japan

<sup>2</sup>Lecturer, School of Nursing, University of KinDai Himeji city, Hyougo prefecture, Japan

**Corresponding author: Kazuya Ikenishi**

Lecturer, School of Nursing, Aichi kiwami Nursing College, 5-4-1, Jogan-dori, Ichinomiya city, Aichi prefecture, Japan

E-Mail: [k.ikenishi.t@aichi-kiwami.ac.jp](mailto:k.ikenishi.t@aichi-kiwami.ac.jp)

## **Abstract:**

**Background:** A lot of researcher have addressed work-life balance as research subject in recent years. These studies concerning work-life balance (WLB) appeared to focus mainly on nurse who had a role of child-care and/or housework. Concerning nurses who were unmarried and had a few years of experience, it remains unclear whether or not an imbalance between their work and private life arise.

**Objective:** This study aimed to clarify the relationship between WLB and the recognition of work environment (NWI-R score) belonged to unmarried nurse working experience of less than 2 years.

**Methods:** The subject of this survey was nurse who were working at two hospitals in Tokai area and Kanto area except for nurses belonged to the department of nursing administration. Data were collected with years of working experience and sex, age, work-life balance (Satisfied/Dissatisfied/Don't know), NWI-R.

**Results:** Respondents were 117 nurses. Nurse had less than 1 year of working experience was 61, and more than 1 year less than 2 years was 56. In terms of WLB, respondents of "satisfied" the balance between their work and private life was 37 nurses and respondents of "unsatisfied" was 36, "Don't know" was 44. As a result of analysis with Kruskal-Wallis test, it was revealed that a significant difference among the NWI-R score of these 3 groups ( $p=0.0013$ ).

**Conclusion:** The present study suggests the improvement nursing workplace so that nurses could use effectively their time related on private life other than child-care and housework.

**Disclosure:** The author has no conflict of interest.

**Keywords:** Work-life balance, nurse, workplace, NWI-R, one-way ANOVA

I . Introduction

A lot of researcher have addressed the work-life

balance as research subject in recent years. The work-life balance was defined as "the way of life and working so that people work harmoniously with their private life and have a fulfilling life" (Cabinet Office, 2015). Losing work-life balance have been reported to be related with ruining nurse's health and increasing a possibility for turnover<sup>1-5</sup>.

These studies concerning work-life balance (WLB) appeared to focus mainly on nurse who had a role of child-care and/or housework (Jennifer, 2010). On the other hand, subjects surveyed in these studies included nurses aged younger or had a few length of service<sup>1-3,6</sup>.

Although having a keen interest in imbalance between work and housework / child-care of causing a disturbance of the WLB, it wasn't necessary to think that research subjects were restrained nurses had a role of child-care and/or housework. On the other hand, in regard to nurses who were unmarried and had a few years of experience, it remains unclear whether or not such an imbalance between their work and private life arise.

Furthermore, there is no accounting for restricting nurse's private life to housework and child-care. On the contrary, it recognizes their enjoying the hobby and the friendship and so on as important factors for living a fulfilling life<sup>7</sup>.

Nevertheless, it wasn't be found that studies focusing on the WLB of unmarried nurses who had a few length of service. This study investigated the WLB on such an unmarried nurse who had one or two year experience in hospital. Then by means of using the scale of Nursing Working Index-Revised (NWI-R), it was thought to explore the relationship between the WLB and

their recognition of work environment.

When unmarried (and no children) nurses with a few experience years don't get a work-life imbalance, if it relates with their recognition of work environment, then an improvement of the environment will be able to make something their WLB better. I thought to be able to obtain such a suggestions from the consequence of an analysis in this study.

**Purpose:** This study aimed to clarify the relationship between WLB and their recognition of work environment (NWI-R score) belonged to unmarried nurse working experience of less than 2 years.

## II. Methods

**Subjects:** The subject of this survey was nurse who were working at general hospitals in Tokai area (273 nurses) and in Kanto area (726 nurses) except for nurses belonged to the department of nursing administration in these hospitals.

**The term of data collection:** The time data collection took place between June and July of 2014.

**Measures:** Data were collected with years of working experience and sex, age, work-life balance (Satisfied/Dissatisfied/Don't know), NWI-R.

The NWI-R questionnaire was used to assess recognition of nursing work environment<sup>8-10</sup>. Although the original NWI-R questionnaire composed of 51 questions, this study used the scale composed of 39 questions excluding 12 ones referring to several studies using factor analysis<sup>11-13</sup> (total score range from 39 to 156 points). Specifically, this study didn't used question item No 2 and

5,14,23,24,25,33,36,39,46,50,51 in the original NWI-R questionnaire<sup>8-10</sup>.

This NWI-R have 4 subscales, which are "Nurse manager, ability, leadership and support" and "Nurse participation in the workplace", "Staffing and resource adequacy", "Nursing foundations for quality care".

Namely, the subscale "Nurse manager, ability, leadership and support" includes a question item "Praise and recognition for a job well done" etc. The subscale "Nurse participation in the workplace" holds "Nurses have the opportunity to serve on hospital and nursing committees" etc. The subscale "Staffing and resource adequacy" comprehends "Working with nurses who are clinically competent" etc.

**Data analysis:**Data were analysed using SAS university edition and R. Analysis procedures included descriptive statistics and one-way analysis of variance. Subjects were divided into 3 groups according to the answer of WLB(Satisfied/Dissatisfied/Don't know).

To compare variables among these 3 groups, Kruskal-Wallis test with posthoc Steel-Dwass test. The level of significance was set at  $p < 0.05$ .

**Ethical consideration:** The research was approved by Aichi Kiyami College of Nursing Research Ethical Committee (Aichi Kiyami College of Nursing, No7-2014). The questionnaire and the written request were distributed to subjects by means of collaborators in these hospitals.

As a result of consultation with these collaborators, questionnaires written by each nurse working at a hospital in Kanto area were collected using a self-addressed envelope respectively. On the other hand, at a hospital in Tokai area, after each sealed questionnaire was aggregated in it, the researcher

collected them. Return of the completed questionnaire was taken as consent to participate with this study.

### III. Results

Respondents were 117 nurses, which contained 3 males. All of 117 nurses were unmarried. Nurses had less than 1 year of working experience was 61, and more than 1 year less than 2 years was 56.

In terms of WLB, respondents of "satisfied" the balance between their work and private life was 37 nurses and respondents of "unsatisfied" was 36, "Don't know" was 44.

Then, each 4 subscales and all of NWI-R questionnaire were tested by means of Cronbach's coefficient alpha. The subscale "Staffing and resource adequacy" containing 20 question items was 0.8820 of standardized alpha coefficient, "Nurse participation in the workplace" containing 8 question items was 0.7584, "Staffing and resource adequacy" holding 7 question items was 0.8113, "Nursing foundations for quality care" having 4 question items was 0.6245, all of 39 questions was 0.9330.

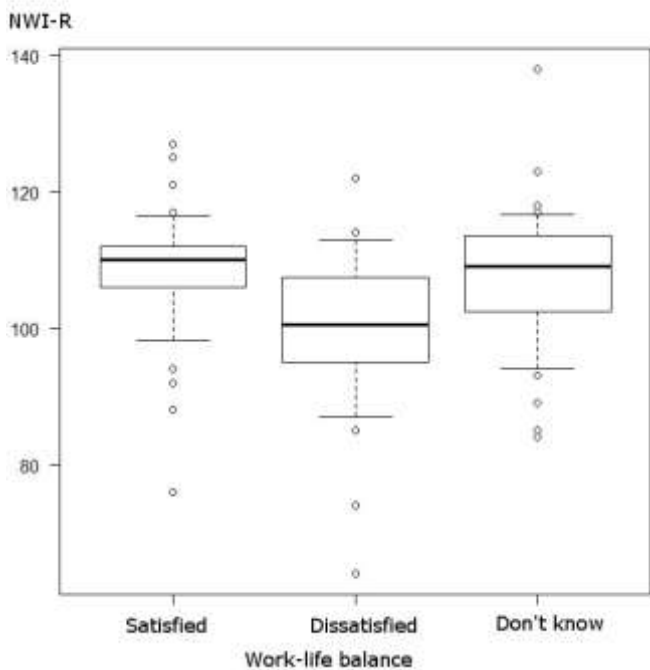
The median of NWI-R score was 107 points among all of 117 respondents, and was 110 points among 37 respondents of "satisfied" WLB, 100 points among 36 respondents of "dissatisfied" it, 109 points among 44 respondents of "don't know"(Table1).

Table1. Descriptive statistics for subjects

Variables	Groups	Median	Minimum	Maximum
age(year)		23	22	33
NWI-R(point)*	WLB <sup>†</sup> : Satisfied (n=37, 31.6%)	110	76	127
	Dissatisfied (n=36, 30.8%)	100	64	122
	Don't know (n=44, 37.6%)	109	84	138
	Total (n=117)	107	64	138
Variables	Question items	number of respondents		
sex	male/female	3(2.6%)/114(97.4%)		
years of experience	less than 1/more than 1 and less than 2	62(53.0%)/55(47.0%)		

\* range:39 ~ 156  
<sup>†</sup>Work-life balance

For the purpose of clarifying statistically significant difference among NWI-R score in 3 groups according to the answer of WLB, the homogeneity among 3 groups was analyzed using Fligner-Killeen test at first. As a result of the test, a significant difference among 3 groups wasn't found, so that it didn't regard 3 groups as not homogeneous ones (Graph1,  $p=0.1823$ ,  $df=2$ , chi-squared value=3.4037).



Graph1. The distribution of NWI-R score among 3 groups

Then, as a result of analysis with Kruskal-Wallis test, it was revealed that a significant difference

among the NWI-R score of 3 groups according to the answer of WLB ( $p=0.0013$ ,  $df=2$ , chi-squared value=13.2831).

Furthermore, as a result of analysis with posthoc Steel Dwass test (Table2), it accepted statistically significant differences between a group of "satisfied" their WLB and a group of "dissatisfied" their one ( $p=0.0018$ ,  $t$ -value=3.4295) and the "dissatisfied" group and "don't know" group ( $p=0.0133$ ,  $t$ -value=2.8218).

Table2. Result of Steel-Dwass test (n=117)

Group	Group	t-value	p-value
Satisfied	Dissatisfied	3.4295	0.0018 *
Satisfied	Don't know	0.7979	0.7043
Dissatisfied	Don't know	2.8218	0.0133 *

\*  $\alpha < 0.05$

#### IV. Discussion

In terms of nursing work environment, the result of this analysis showed that the appreciation (NWI-R score) given by nurses who satisfied own WBL was higher than nurses who didn't satisfied own it. Accordingly, this result suggested that nurses recognizing their workplace as a decently one had their balance between work and private life.

Therefore, in order to cope with both nursing work and their private life, it is thought necessary to improve nursing work environment so as to recognize getting the appraisal good nursing practices and the harmonious multidisciplinary cooperation included such as the physician and the pharmacist at workplace in hospital.

However, the factor affected on nurse's satisfaction their WLB is not only nursing work but also their private life<sup>2</sup>. Furthermore, because

the private life situation differs according to the person, it is considered to confine the effect of improvement nursing workplace to a certain magnitude. Nevertheless, it is considered necessary to pursue for improvement working environment so that nurse's satisfaction on work would rise and their turnover would decrease<sup>14, 15</sup>.

Studies related on WLB among nurses appeared to mainly focus on nurses who were busy with their child-care and housework<sup>6,16</sup>. Although the subject in this study was only unmarried nurse who worked 2 years experience in hospital, one of three divisions of subjects in this study didn't still satisfy own WBL. Therefore, it concludes that such a nurses unmarried and having a few experience years need to modulate working time/day effectively so as to enjoy their private life.

In conclusion, the present study suggests the improvement nursing workplace so that nurses could use effectively their time related on private life other than child-care and housework.

Conflict of interest: Author has no conflict of interest.

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