

ปัจจัยที่มีผลต่อความผาสุกทางใจในการทำงานของพยาบาลวิชาชีพ Factors Affecting Psychological Well-being at Workplace among Nurses

นิพนธ์ต้นฉบับ

Original Article

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วารสารไทยเภสัชศาสตร์และวิทยาการสุขภาพ 2567;19(4):350-360.

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บทคัดย่อ

วัตถุประสงค์: เพื่อศึกษาความผาสุกทางใจในการทำงานของพยาบาลและปัจจัยที่มีผลต่อความผาสุกทางใจในการทำงานของพยาบาลวิชาชีพ **วิธีการศึกษา:** กลุ่มตัวอย่างในครั้งนี้คือ พยาบาลวิชาชีพระดับปฏิบัติการโรงพยาบาลระดับตติยภูมิแห่งหนึ่ง จำนวน 110 คน คัดเลือกกลุ่มตัวอย่างโดยวิธีการสุ่มอย่างง่าย เครื่องมือที่ใช้ในการเก็บรวบรวมข้อมูล ได้แก่ แบบสอบถามเกี่ยวกับข้อมูลส่วนบุคคล แบบสอบถามความผาสุกทางใจในการทำงาน แบบสอบถามความภาคภูมิใจในตนเอง แบบสอบถามสัมพันธภาพกับเพื่อนร่วมงาน แบบสอบถามการรับรู้ภาระงาน แบบสอบถามลักษณะสภาพแวดล้อมในการทำงาน และแบบสอบถามสมตลชีวิตกับการทำงาน เก็บรวบรวมข้อมูลระหว่างวันที่ 1 ธันวาคม พ.ศ. 2565 ถึงเดือน 30 ธันวาคม พ.ศ. 2565 วิเคราะห์ข้อมูลด้วยใช้สถิติสมการถดถอยเชิงเส้นพหุคูณแบบขั้นตอน **ผลการศึกษา:** พยาบาลวิชาชีพมีความผาสุกทางใจในการทำงานโดยรวมอยู่ในระดับปานกลาง 49.90 (SD = 8.36) ปัจจัยที่มีผลต่อความผาสุกทางใจในการทำงานของพยาบาลวิชาชีพได้อย่างมีนัยสำคัญทางสถิติมี คือ การรับรู้ภาระงาน ($\beta = -.312, p < .001$) และลักษณะสภาพแวดล้อมในการทำงาน ($\beta = .276, p < .001$) โดยทั้งสองตัวแปรร่วมกันส่งผลกระทบต่อความผาสุกทางใจในการทำงานของพยาบาลวิชาชีพได้ร้อยละ 20.1 ($R^2 = .201, F(1,109) = 5.235, p < .001$) สรุป: พยาบาลวิชาชีพมีความผาสุกทางใจในการทำงานโดยรวมอยู่ในระดับปานกลาง การรับรู้ภาระงานและลักษณะสภาพแวดล้อมในการทำงานที่มีผลต่อความผาสุกทางใจในการทำงานของพยาบาลวิชาชีพ ผลการวิจัยสามารถนำไปใช้เป็นข้อมูลพื้นฐานในการพัฒนารูปแบบการเสริมสร้างความผาสุกทางใจในการทำงานให้กับพยาบาลวิชาชีพที่เริ่มปฏิบัติงาน เพื่อส่งเสริมความผาสุกทางใจในการทำงานของพยาบาลวิชาชีพต่อไป **คำสำคัญ:** ความผาสุกทางใจในการทำงาน, พยาบาลวิชาชีพ, การรับรู้ภาระงาน, ลักษณะสภาพแวดล้อมในการทำงาน

คำสำคัญ: ความผาสุกทางใจในการทำงาน; พยาบาลวิชาชีพ; การรับรู้ภาระงาน; ลักษณะสภาพแวดล้อมในการทำงาน

Editorial note

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Introduction

Registered nurses are important personnel in the health service system. They are a large group of personnel with importance because they are close to the patients and spend a large amount of time working on health services both in public and private hospitals.⁴ Registered nurses provide nursing care to the patients 24 hours a day. With this hard

work, some registered nurses work double or triple shifts which may affect their lifestyle. For example, they have to change their bedtime, mealtime and family lifestyles or social activities, which may affect their physical, mental and social well-being.¹

Nursing is a job requiring a lot of responsibility. Sometimes, nurses have to rush and face stress. A study of work stress among registered nurses at the outpatient department of a hospital in Bangkok revealed that 51.9% of the participants had a mild level of work stress while 3.9% had a severe level of work stress.¹⁵ Registered nurses may experience risk factors that cause both physical and mental health problems affecting their well-being at work and quality of life.³⁴

The psychological well-being of personnel in the organization, especially nurses, is truly important to the work and organization. Happiness at work is the positive emotional experience that promotes employees to be creative, have integration and decision-making skills, and work mindfully.³⁹ Happiness at work has an effect on the personnel themselves, the work assigned to them, and the organization. Happy personnel will have good mental health, resulting in readiness and efficiency in working and leading to further organizational development.^{3,8} Happiness or psychological well-being at workplace has a great influence on people, especially nurses, who are in the working age group. For this reason, the psychological well-being at workplace of nurses is considered an indicator of quality of life and good physical, mental and social health as well as life satisfaction.⁷

Psychological well-being at workplace is the emotional dimension of a person, consisting of enjoyment at work, job satisfaction and job enthusiasm.⁴⁰ The feelings of a person towards work will be reflected when faced with situations that occur while working.

From the review of research on the psychological well-being at workplace among registered nurses, different perspectives on Thai nurses' work happiness have been proposed. The hospital administrators provide the view that Thai nurses have high potential and are leaders. Happiness at work is from providing and caring for patients, but work-related unhappiness is due to hard work, less compensation and less career advancement. The academics/nurse instructors think that nurses feel unhappy due to the overload from quality assurance work, unclear career advancement, changes in society and technology, and too many hospital administrators. The physicians view that nurses are unhappy because of less career advancement, non-available officer positions, low compensation, risk for legal action, overload from non-nursing tasks, and a lot of paperwork.²⁶ A study also

found that most registered nurses were not happy at work. The survey revealed that 65% of nurses had lower happiness scores than ordinary people.²⁷ Also, of 18,769 Thai nurses, 45.50% of them had high levels of work stress.³ Nowadays, registered nurses have to work under many pressures from heavy workload, higher expectations of service recipients and colleagues who do not provide help and administrators who are inflexible. Nurses also have different lifestyles from other occupations in terms of working and resting hours. They have to work 24 hours for morning, afternoon and night shifts. Thailand is currently entering the era of Thailand 4.0 with rapid changes in both the health service system and technology. These changes cause registered nurses to greatly adapt themselves and adjust their roles and responsibilities. These factors may, therefore, result in job transfers and resignation and an increasing shortage of nurses.³

From the review of previous research, many factors affect psychological well-being at work. For example, Dounthip & Tevichapong (2019)⁶ studied the factors predicting psychological well-being of registered nurses working at private hospitals in Chiang Mai Province. The findings revealed that positive perfectionism and work engagement could significantly predict psychological well-being of registered nurses. A study by Jangjit & Smuthranond (2019)³⁰ on the quality of work life, work-life balance and psychological well-being of registered nurses in medium-sized private hospitals in the Bangkok Metropolitan. It was found that the registered nurses' quality of work life, social integration and growth and security, work-life balance, personal life interference with work and work/personal life enhancement could jointly significantly predict registered nurses' psychological well-being in medium-sized private hospitals in the Bangkok Metropolitan. A study of factors predicting the well-being of registered nurses in university hospitals¹⁸ revealed that the well-being of registered nurses in university hospitals was at a good level. Age, income and occupational safety climate were significantly related to the well-being of the registered nurses in university hospitals. Job stress was significantly and negatively correlated with the well-being of the registered nurses. Moreover, occupational safety climate, income, and job stress could significantly predict the variability of the well-being of registered nurses in university hospitals. Regarding psychological well-being at workplace of medical personnel, there was a study of association between

psychosocial factors and psychological well-being at workplace among emergency medical technicians.¹⁶ It was revealed that the overall psychological well-being at workplace of emergency medical technicians was at a good level. Emotional exhaustion and work-family conflict had high significant negative relationships with psychological well-being at workplace. Relationships with colleagues, public mind and self-esteem were significantly and positively related to psychological well-being at workplace. A study^{2 8} of relationships between personal factors, personality, self-esteem, and work happiness of nurses pointed out that nurses' work happiness was high, and their self-esteem was positively related to their work happiness. A study by Suebsuk, Tosuksri & Suwanrong (2012) showed that the nursing instructors had a high level of happiness at work. Age, work experience and job characteristics could significantly explain the variance in happiness at work of the nursing instructors. In this present study, the researcher was interested in studying the factors affecting the psychological well-being at workplace among registered nurses. The selected factors included self-esteem, relationship with colleagues, perceived workload, work environment and work-life balance.

Self-esteem is a reflection of a person's success in doing various things, causing a feeling of confidence, believing in own potential, feeling satisfied and having psychological well-being.³⁷ Self-esteem had a significantly positive relationship with happiness at workplace among nurses ($r=0.594$).²⁸ Self-esteem was one factor affecting the psychological well-being at workplace of registered nurses.

Relationship with colleagues is a relationship among people in organization at the same level in which each person has no power over the other. Having generous and helpful colleagues, participating in work or being supported and cheered up by colleagues will lead to psychological well-being at workplace and result in trust with colleagues, allowing people to work together happily.²⁹ A previous study studying the psychological well-being at workplace among emergency medical technicians revealed that relationship with colleagues had positive relationship with psychological well-being at workplace ($r = 0.869$).^{1 6} Therefore, relationship with colleagues should have an effect on the psychological well-being at workplace among registered nurses.

Perceived workload is the awareness of work characteristics, the amount of work or the workload of nurses

who have been assigned too much responsibility and have a limited working period, requiring high physical and mental effort to complete the work as intended. A study found that perceived workload was positively related to job burnout and emotional exhaustion among nurses in Thailand.¹³ Moreover, perceived job characteristics was significantly and positively related to faculty members' happiness at work in the Faculty of Nursing, Mahidol University at the level of .05.¹⁹ Therefore, perceived workload is likely to cause psychological well-being at workplace among registered nurses.

Work environment refers to the atmosphere and general conditions that affect nurses while working, including their responsibilities, relationships in the organization, perceived management system, perceived job success and perceived professional ability of their own. A study pointed out that working environment was significantly related to happiness and professional attachment among registered at the level of .05.²⁷ It was also found that working environment was important for the development of registered nurses' happiness at workplace.²⁰ In addition, work environment affected the work efficiency of hospital employees.^{3 2} Therefore, work environment is likely to lead to psychological well-being at workplace among registered nurses.

Work-life balance is the ability of registered nurses to adjust the balance between personal life and work. It is an overall assessment about appropriate allocation of time for living life. If nurses have work-life balance, they will live life and work smoothly, resulting in happiness in both personal life and work.³⁵ Happiness at work will promote work-life balance of nurses. Nurses have to work with patience, understanding and quick learning to enable themselves to confidently perform nursing duties in caring for service recipients and to make the service recipients impressed with the service. These will lead to happiness and bring balance in work.⁵ In addition, a study revealed that work-life balance and job satisfaction could explain the quality of life of Thai registered nurses ($R^2=0.278$). Work-life balance, therefore, is likely to lead to registered nurses' psychological well-being at work.

As the aforementioned information show various factors and their effects on the work of registered nurses, the researcher was interested in studying psychological well-being at workplace among registered nurses working in government hospitals and the factors affecting their psychological well-being at workplace. The researcher reviewed the literature

and previous research conducted both in the country and abroad on registered nurses and found that relatively few studies were conducted on psychological well-being among registered nurses and some factors were not studied among registered nurses. The selected factors in this study included self-esteem, relationship with colleagues, perceived workload, work environment and work-life balance. Therefore, studying the factors affecting psychological well-being at workplace among registered nurses is necessary and interesting in order to promote such factors for the satisfaction of registered nurses, who are the main personnel of health organizations so that they are happy and have a good quality of life. This will allow registered nurses to work efficiently in helping others and to be an important force of health organizations in developing the country.

Conceptual framework

Warr's (1990) theory of psychological well-being at work was employed in this study.⁴⁰ Psychological well-being at workplace is the feeling that arises within the mind of a person in response to events occurring at work or a person's experience in working, consisting of 3 elements: enjoyment at work, job satisfaction, and job enthusiasm. The researcher also reviewed relevant literature to apply to study the psychological well-being among registered nurses and the factors affecting their psychological well-being. Regarding psychological well-being at workplace in terms of enjoyment at work, the selected factor used in this study was relationship with colleagues, which will make people not feel anxious at work. In terms of job satisfaction, the selected factors were perceived workload and work environment. As for job enthusiasm, the selected factor was work-life balance, which will create job enthusiasm. These are the person's feelings towards work, which will be reflected when faced with situations that occur while working. From the literature review, self-esteem was a factor that could predict nurses' happiness at work (Sornsuthi & Aunguroch, 2011).^{2 8} Therefore, registered nurses with self-esteem, a good relationship with colleagues, perceived workload, good work environment and work-life balance will have psychological well-being at workplace. The conceptual framework is shown in Figure 1.

เพิ่มเติมรูปภาพ

Methodology

This was a predictive correlation study.

Research objectives

1. To study the psychological well-being at workplace among registered nurses.
2. To investigate the factors affecting psychological well-being at workplace among registered nurses, including self-esteem, relationship with colleagues, perceived workload, work environment and work-life balance.

Research hypothesis

Self-esteem, relationship with colleagues, perceived workload, work environment and work-life balance affect the psychological well-being at workplace among registered nurses.

Methods

Population and sample

The population included 181 registered nurses working at a general inpatient ward, not an intensive care unit of a government hospital (the information as of December 2021).

The sample included 110 registered nurses working at an inpatient ward of a government hospital in the eastern region where the study was conducted. They were randomly selected based on the specified inclusion criteria:

1. a registered nurse
2. working for 6 months or more
3. not being diagnosed with a serious physical or psychiatric illness by a doctor

The sample size of this study was obtained by using the G*power 3.1.9.7 program. The power of test was set at the level of .80. The effect size was set at 0.15 because it is an effect size used in nursing research. Alpha was set at .05. In this study, there were 5 independent variables. From the calculation with the G*power, the sample size was 92 people. To prevent the sample loss, the sample size was increased by at least 20% (18 people) (Little & Rubin, 2002). Therefore, the sample of this study was 110 people.

Research instruments

The research instrument was a self-report questionnaire, consisting of 7 parts, namely a personal information questionnaire, a psychological well-being at workplace questionnaire, a self-esteem questionnaire, a relationship with colleagues questionnaire, a perceived workload questionnaire,

a work environment questionnaire and a work-life balance questionnaire.

Part 1: A personal information questionnaire

It was created by the researcher from the review of related literature, consisting of 7 questions asking about gender, age, marital status, ward, work shifts, duration of work in this government hospital, and accommodation.

Part 2: Psychological well-being at work questionnaire

The psychological well-being at work questionnaire developed by Ethonchai (2012)³¹ with the Cronbach's alpha coefficient of 0.90 was used in this study. It is a 5-point rating scale questionnaire consisting of 14 questions. The interpretation of scores for psychological well-being at work can be done by summing up the scores of all questions. Total scores range from 14-70 points and are divided into 3 levels: 14.00-32.66 points = a low level of psychological well-being at work; 32.67 - 51.33 points = a moderate level of psychological well-being at work, and 51.34-70.00 points = a high level of psychological well-being at work.

Part 3: Self-esteem questionnaire

The Thai version of the self-esteem questionnaire developed by Wongpakaran & Wongpakaran (2011)¹⁴ with the Cronbach's alpha coefficient of 0.80 was used. It is a 4-point rating scale questionnaire with 10 questions. Five positively worded questions include questions 1, 3, 4, 7, and 10. Five negatively worded questions include questions 2, 5, 6, 8, and 9. The scores on the negatively worded questions must be reversed before summing up. Total scores range from 10-40 points. High scores indicate high self-esteem, and low scores indicate low self-esteem.

Part 4: Relationship with colleagues questionnaire

The relationship with colleagues questionnaire developed by Porbootdee (2015)²³ with the Cronbach's alpha coefficient of 0.92 was employed in this study. There are 11 questions with a 5-point rating scale. There are 9 positively worded questions: Items 1 - 9, and 2 negatively worded questions: Items 10 and 11. The scores on the negatively worded questions must be reversed before summing up. Total scores range from 11 - 55 points. High scores indicate good relationship with colleagues, and low scores indicate poor relationship with colleagues.

Part 5: Perceived workload questionnaire

The perceived workload questionnaire of Taengetch (2015)²⁵ with the Cronbach's alpha coefficient of 0.80 was

used in this study. It comprises 13 questions with a 5-point rating scale. The interpretation of perceived workload can be done by summing all scores for all items. High scores indicate poor perceived workload, and low scores indicate good perceived workload.

Part 6: Work environment questionnaire

The work environment questionnaire of Zhou (2010)¹⁷ with the Cronbach's alpha coefficient of 0.83 was employed. It is a 5-point rating scale questions comprises 28 questions. The work environment in terms of responsibility consist of items 4, 6, 7 which are positively worded questions and items 1, 2, 3, 5 which are negatively worded questions. Regarding organizational relationship, there are positively worded questions in items 8, 9, 10, 11, 12, 14 and a negatively worded question in item 13. As for perceived management system, there are positively worded questions in items 15, 16, 17, 18, 19 with no negatively worded question. Regarding perceived career success, there are positively worded questions in items 21, 22, 23, 24 with no negatively worded question. In terms of perceived professional ability, there are positively worded questions in items 25, 26, 27 and a negatively worded question in item 28. Therefore, there are 22 positively worded questions and 6 negatively worded questions. The interpretation of work environment scores is based on the sum of all scores for all items. High scores indicate good work environment, and low scores indicate poor work environment.

Part 7: Work-life balance questionnaire

The work-life balance questionnaire of Kathongthung (2017)⁸ with the Cronbach's alpha coefficient of .81 was employed in this study. It is a 5 - point Likert scale questionnaire consisting of 14 questions about work life plans, including work, family, time, finance, and mind. The results are interpreted by summing all scores for every question. High scores indicate good work-life balance. Low scores indicate poor work-life balance.

Verification of the research instruments

The personal information questionnaire, the psychological well-being at work questionnaire, the self-esteem questionnaire, the relationship with colleagues questionnaire, the perceived workload questionnaire, the work environment questionnaire and the work-life balance questionnaire were tried out to investigate the reliability among 30 registered nurses with similar qualifications to the participants of this study. The obtained data were used to find out the reliability

value using the Cronbach's alpha coefficient. The acceptable reliability value must be greater than or equal to .80. The findings revealed that the Cronbach's alpha coefficients of the psychological well-being at work questionnaire, the self-esteem questionnaire, the relationship with colleagues questionnaire, the perceived workload questionnaire, the work environment questionnaire and the work-life balance questionnaire were .90, .80, .92, .80, .83 and .81, respectively.

Protection of the participants' rights

The researcher proceeded every step of the research by strictly adhering to research ethics and protecting the rights, value and human dignity of the participants equally. Before conducting the research, the thesis proposal and the research instruments were submitted to the Human Research Ethics Committee, Burapha University for ethical considerations of human research. This research was certified with the certification document number G-HS074/2565. After that, the thesis proposal was submitted to the Human Research Ethics Committee of Prapokklao Hospital for consideration of ethics in human research, and it was certified with the certification document number CTREC 094/65. Afterwards, the letter requesting permission to collect data for investigating the reliability of the research instruments and carrying out the research issued by the Dean of the Faculty of Nursing, Burapha University was submitted to the director of the hospital where the study was conducted. During the meet with the nurses who were the target group, the researcher made self-introduction, explained the details about the research participation. The informed written details about the research participation were also provided. The results of this study were used for academic purposes only. The data were stored on a computer. The participants' personal details were not disclosed to the public. The participants were also allowed to freely ask questions about the research from the researcher.

Data collection

Due to the COVID-19 pandemic, the researcher strictly followed the measures and guidelines for disease prevention in data collection. The data were collected by the questionnaires with the following steps.

1. After the thesis proposal was approved by the Human Research Ethics Committee, Burapha University, the researcher submitted the letter to the director of Phrapokklao Hospital to request ethical considerations of human research

from the Human Research Ethics Committee of Phrapokklao Hospital.

2. The letter requesting permission to collect data for investigating the reliability of the research instruments and to collect data from the participants was submitted to the director of Phrapokklao Hospital.

3. The researcher gave the documents explaining about the research participation along with informing the research objectives, research process and data collection steps to the participants.

4. The data collection was administered. When the participants did not understand or had questions, the researcher would give an explanation to them.

5. The researcher checked for completeness of every questionnaire response.

6. The researcher recorded all data on a computer and analyzed them with a statistical program. All data were kept confidential and could be accessed only by the researcher and the advisor.

Data analysis and statistics

The statistical analysis was performed to find out the research results as follows.

1. The participants' personal data were analyzed by descriptive statistics to distribute frequencies, percentages, means, and standard deviations using a statistical software program.

2. The data of participants' self-esteem, relationship with colleagues, perceived workload, work environment, work-life balance and psychological well-being at workplace were analyzed by mean and standard deviation, frequency, and percentage.

3. The predictive power of self-esteem, relationship with colleagues, perceived workload, work environment, and work-life balance on psychological well-being at workplace among registered nurses were analyzed by multiple regression with the statistical significance at the .05 level.

Results

Psychological well-being at workplace among registered nurses	Number (people) (n = 110)	Percentage
A low level of psychological well-being at workplace	4	3.60
A moderate level of psychological well-being at workplace	62	56.40
A high level of psychological well-being at workplace	44	40.00
(\bar{X} = 49.90, SD = 8.36)		

Results

There were 110 participants in this study, and all of them were female (100.0%). The majority was between the ages of 20-30 (97.00%), with a mean age of 26.41 years (SD = 2.30). Most of them graduated with a bachelor's degree (96.40%), followed by a master's degree and higher (3.60%). The marital status of most registered nurses was single (96.10%), followed by married (26.40%). The duration of working as a registered nurse was between 1-10 years (99.10%), with a mean working duration of 4.61 years (SD = 2.22). All of them worked on a rotating shift basis (morning-afternoon-night shifts) (100.0%) (Table 1).

Table 1: Number percentage, mean and standard deviation of the participants' personal information (n=110)

Personal information	Number (people)	Percentage
(n = 110)		
Gender		
Female	110	100.00
Age		
20-30 years	107	97.00
Age		
30-40 years	3	3.00
(\bar{X} = 26.41, SD = 2.30)		
Education level		
Bachelor's degree	106	96.40
Master's degree and higher	4	3.60
Marital status		
Single	76	96.10
Married	29	26.40
Widowed	2	1.80
Divorced	3	2.70
Working duration as a registered nurse		
1-10 years	109	99.10
11-20 years	1	0.90
(\bar{X} = 4.61, SD = 2.22)		
Work shifts		
Only morning shift	0	0
Rotating shifts	110	100.00

The participants' psychological well-being at workplace was at a moderate level (56.40%), with a mean score of 49.90 points (SD = 8.36) (Table 2).

Table 2: Number and percentage of psychological well-being scores (n = 110)

The mean score of self-esteem was 31.35 points (SD = 2.71); that of relationship with colleagues was 43.72 points (SD = 6.54); that of perceived workload was 50.23 points (SD = 7.83); that of work environment was 96.83 points (SD = 9.81), and that of work-life balance was 59.46 points (SD = 5.73) (Table 3).

Table 3: Mean, standard deviation, minimum and maximum scores of the variables (n = 110)

The perceived workload had a significant negative relationship with the registered nurses' psychological well-being at workplace at the <0.1 level ($r = -0.380$). The work

environment also had a significant positive relationship with the registered nurses' psychological well-being at workplace at the < .01 level ($r = .343$) (Table 4).

Table 4: Results of the Pearson's correlation coefficient analysis between the variables (n = 100)

Variables	1	2	3	4	5	6
1. Psychological well-being at workplace among registered nurses	1					
2. Self-esteem	-.012	1				
3. Relationship with colleagues	.159	-.005	1			
4. Perceived workload	-.380**	-.128	-.229*	1		
5. Work environment	.343*	-.041	.573**	-.340*	1	
6. Work-life balance	-.029	.014	.167	.193	0.91	1

* $p < .05$, ** $p < .01$

Variables	Mean	SD	Possible Range	Actual Range
Self-esteem	31.35	2.71	10-40	23-39
Relationship with colleagues	43.72	6.54	11-55	14-55
Perceived workload	50.23	7.83	13-65	30-65
Work environment	96.83	9.81	28-140	55-128
Work-life balance	59.46	5.73	14-70	43-70

The two factors affecting the registered nurses' psychological well-being at workplace with statistical significance were perceived workload ($\beta = -0.312$, $p < .001$) and work environment ($\beta = .276$, $p < .001$). These two variables could together affect the psychological well-being at workplace among registered nurses by 20.1% ($R^2 = .201$, $p < .001$) (Table 5).

Table 5: Results of multiple linear regression analysis of the factors affecting the psychological well-being at workplace among registered nurses

Predictive factors	b	S.E.(b)	β	t	p
Constant	50.257	15.290		3.289	.001
Perceived workload	-.333	.104	-.312	-3.199	.002
Work environment	.235	.095	.276	2.47	.015

$R^2 = .201$, Adj. $R^2 = .163$, $F_{(1,108)} = 5.239$, $p < .001$

Discussions and Conclusion

The study results will be presented according to the research objectives as follows.

1. The general information of the participants: There were 110 participants in this study. All of them were female (100.0%). The majority was between the ages of 20-30 (97.00%), with a mean age of 26.41 years (SD = 2.30). Most of them graduated with a bachelor's degree (96.40%), followed by a master's degree and higher (3.60%). The marital status of most registered nurses was single (96.10%), followed by married (26.40%). The duration of working as a

registered nurse was between 1-10 years (99.10%), with a mean working duration of 4.61 years (SD = 2.22). All of them worked on a rotating shift basis (morning-afternoon-night shifts) (100.0%).

2. The psychological well-being at workplace: The participants' psychological well-being at workplace was at a moderate level (56.40%), with a mean score of 49.90 points (SD = 8.36).

3. The factors affecting the psychological well-being at workplace among registered nurses: The two factors affecting the registered nurses' psychological well-being at workplace with statistical significance were perceived workload ($\beta = -.312, p < .001$) and work environment ($\beta = .276, p < .001$). These two variables could together affect the psychological well-being at workplace among registered nurses by 20.1% ($R^2 = .201, p < .001$).

The study results can be discussed according to the research objectives as follows.

1. The psychological well-being among workplace registered nurses: In this study, the overall psychological well-being at workplace among registered nurses was at a moderate level (56.40%) (SD = 8.36). From the literature review, the findings of this study are consistent with a study by Jampasri (2021)²¹ which found that the happiness at work among the registered nurse was at a moderate level ($X = 3.61, SD = .50$). A study by Laowanich, Punyaratabandhu, Patcharatanasan & Lukkanalikitkul (2021)⁹ also showed that the overall happiness score of registered nurses was in a happy group. Similarly, a study by Khaoprai (2017)¹² pointed out that the level of happiness at work of registered nurses under the jurisdiction of the Nakhon Sawan Provincial Public Health Office was at a moderate level. A study by Leelawiwat (2020)² revealed that the happiness at work of nurses in nursing division, Huayploo Hospital Nakhon Chaisri District, Nakhon Pathom Province was at a moderate level. This may be because the majority of the participants in this study were 20-30 years old (97.00%), with a mean age of 26.41 years, which is the beginning of working age. They are enthusiastic about their job and begin to choose their own way of life. However, the perceived workload is quite high, so they may have negative emotions and feelings at work, such as stress and frustration, which may result in a moderate level of psychological well-being at workplace.

2. The factors affecting the registered nurses' psychological well-being at workplace: In this study, perceived workload ($\beta = -.312, p < .001$) and work environment ($\beta = .276, p < .001$) affected the psychological well-being at workplace among nurses. These two variables could together affect the psychological well-being at workplace among registered nurses by 20.1% ($R^2 = .201, p < .001$), which can be discussed as follows.

2.1 Perceived workload: It was revealed that perceived workload affected the registered nurses' psychological well-being at workplace ($\beta = -.312, p < .001$). This indicates that perceived workload can predict the psychological well-being at workplace among registered nurses. If registered nurses have high perceived workload, it will decrease their psychological well-being. This is in line with a study by Suebsuk, Tosuksri & Suwanrong (2012)¹⁹ which showed that perceived job characteristics significantly accounted for 25% of variance in happiness at work at the level of .05. A study by Geounupakul, Tounprommarat & Pienpicharn (2020)²² also revealed that perceived work characteristics can predict the happiness at work of personnel working at Borommarajonnani College of Nursing, Bangkok, Thailand. It can be explained that 100.00% of the participants in this study worked based on rotating shifts (morning-afternoon-night shifts), which may result in changes in their time spent in daily life. The majority of the participants was also between the ages of 20-30 years (97.00%), which is the age of focusing on spending time with friends and starting a family. It is also an age of enthusiasm. Although the participants perceive quite lot of workload, if they can adapt to their work and lifestyle, work successfully and achieve their goals, they will be satisfied with their work.³⁶ This will result in psychological well-being at work and happiness in life. It can be concluded that perceived workload has an effect on psychological well-being at work.

2.2 Work environment: Work environment affected the psychological well-being at workplace among registered nurses ($\beta = .276, p < .001$). It was also found that work environment had a significant positive relationship with the registered nurses' psychological well-being at workplace at the $< .01$ level ($r = .343$). Work environment is one of the factors that create happiness at work.²⁴ The work environment that makes workers feel secure and safe will create job satisfaction (Diener et al., 2003), making workers feel happy with their

work. This is consistent with a study by Paichit Chaiyarit, Khumyu & Othganon (2015)²⁰ which found that work environment had a significant positive relationship with happiness at work at the moderate level among registered nurses at community hospitals in the eastern region of Thailand at the $< .01$ level. It was also found that work environment can predict the happiness at work among registered nurses with statistical significance at the .01 level, with a prediction ability of 20.7%. A study by Promchoo (2020)¹⁰ also pointed out that the environmental factors had a high relationship with happiness at work among registered nurses at a community hospital in Nakhon Si Thammarat Province with statistical significance at the $< .01$ level. A study by Jampasri (2021)²¹ indicated that work environment had a moderate positive relationship with registered nurses' happiness at work ($r = 0.66, p < .001$).

2.3 Self-esteem: It had no effect on the psychological well-being at workplace among registered nurses in this study. It is because the majority was in their 20s-30s, which is the age when they start working and income to take care of themselves, allowing them to have basic self-esteem. When they have self-esteem, they will be able to use their abilities to help patients, leading to job satisfaction and enthusiasm to continue helping patients. The results of this study are not consistent with a study by Sornsuthi & Aunguroch (2011)⁸ which found that self-esteem, emotional stability personality and conscientiousness personality could together significantly predict work happiness of staff at the .05 level. These predictors accounted for 42.9% of the variance.

2.4 Relationship with colleagues: It did not affect the psychological well-being of among registered nurses in this study. This may be due to the fact that the registered nurses can work well and have a good relationship with their colleagues. They also help and trust in each other's abilities. All of these will create a good working atmosphere, allowing the registered nurses to work lively and have fun helping patients. This is inconsistent with the study of Khunphet & Binyala (2017)²⁹ which revealed that receiving support with participation in work or having supportive colleagues, resulting in good trust among colleagues can lead to psychological well-being at work.

2.5 Work-life balance: It had no effect on the psychological well-being at workplace among registered nurses in this study because the majority was single (96.10%), and did not yet

have family responsibilities. As a result, they can adjust to work life without losing balance in personal life. They can focus on their work without any obstacles and have a balance between work and free time. This is consistent with Pongsiri (2009)¹¹ stating that when a person performs their duties to the fullest extent of their ability and when returning home, he or she can fully perform family duties and allocate time for personal activities, such as going on vacation with family, he or she will feel that life is going well. A study by Kaewtawee (2014)³³ also showed that registered nurses at private hospitals in the southern region of Thailand can manage and maintain balance between work and personal life, making life go smoothly and work successfully.

It can be concluded that the factors affecting the psychological well-being at workplace among registered nurses were perceived workload and work environment. These factors are important in promoting the psychological well-being at workplace among registered nurses, who are an important force in the development of the organization and the country.

Recommendations for implications of the study

1. Nursing practice: The study results can be used as basic information to design and develop guidelines for promoting psychological well-being at workplace among registered nurses, especially those working on rotating shifts.

2. Research: Researchers can use the results of this study as guidelines for developing programs to promote psychological well-being at workplace among registered nurses for increasing psychological well-being at workplace.

3. Policy: The study results can be used as basic information for organizations in formulating policies and guidelines to enhance psychological well-being at workplace among registered nurses, especially those working on rotating shifts.

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Recommendations for further research

1. The factors predicting psychological well-being at work among registered nurses in other areas should be studied, such as career advancement, work motivation, morale, rewards, compensation, physical and mental violence from work to cover all factors affecting psychological well-being at work among registered nurses.

2. The study results can be used as basic information for the development of a model for promoting psychological well-being at work among registered nurses who have just started working to promote their psychological well-being at work.

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References

1. Toojinda, K. (2010). Quality of life of registered nurses in Bumrungrad International Hospital. (Master of Science Thesis, Chulalongkorn University).
2. Leelawiwat, K. (2020). Factors related to happiness at work of nurses in nursing division, Huayploo Hospital Nakhon Chaisri District, Nakhon Pathom Province. The 12 th NPRU National Academic Conference. 3364-3371
3. Sawaengdee, K. (2017). Crisis of nursing shortage in health service facilities under Office of Permanent Secretary, Ministry of Public Health: Policy Recommendations. Journal of Health Science of Thailand, 26(2), 456-468.
4. Jearong, K & Srivichai C. (2017). Relationship between Working Environment Factors and Burnout of Nurses, Community Hospital of Pathumtani Province. *Journal of The Royal Thai Army Nurses*.18 (Special edition), 299-305
5. Intulak, K & Oumtanee, A. (2014). Building work-life balance of professional nurses in a private hospital. *Journal of The Royal Thai Army Nurses*, 15(3), 382-389.
6. Doungthip, J. & Tevichapong, P. (2019). Factors Predicting Psychological Well-being of Registered Nurses Working at Private Hospitals in Chiang Mai Province. Chiang Mai: Chiang Mai University.
7. Sangsuk, J. (2015). Personnel management affecting teachers' job satisfaction in Chachoengsao Primary Educational Service, Area 2. *Journal of Rajanagarindra*, 12(28), 103-114.
8. Kathongthung, C. (2017). Effects of Work Environment and Work Life Balance on Construction Employees' Quality of Work Life. Independent Study of Master of Business Administration, Business Engineering Management, Faculty of Business Administration, Rajamangala University of Technology Thanyaburi.
9. Laowanich, N., Punyaratabandhu, M., Patcharatanasan, N. & Lukkanalikitkul, E. (2021). Factors Associated with Happiness among Registered Nurses. *Nursing Journal of the Ministry of Public Health*, 31(2), 181-194.
10. Promchoo, N. (2020). Happiness workplace of professional nurse in community hospital, Nakhon Si Thammarat Province. *The Journal of Boromarjonani College of Nursing Suphanbu*, 3(1), 81-98.
11. Pongsiri, N. (2009). Creating happiness at work. Bangkok: n.p.
12. Khaoprai, T. (2017). Happiness at work of registered nurses under the jurisdiction of the Nakhon Sawan Provincial Public Health Office. Master of Public Administration Thesis, New Public Administration, Nakhon Sawan Rajabhat University.
13. Sirinopmanee, T., Udomtamanupab, M. & Iamsupasit, S. (2020). Perceived Workload, Work Relationship, Social Support and Job Burnout among Registered Nurses with Iddhipada 4 as the Moderator. *Nursing Journal of the Ministry of Public Health*, 30(2), 0693-2673
14. Wongpakaran, T & Wongpakaran, N. (2011). Confirmatory Factor Analysis of Rosenberg Self Esteem Scale: A Study of Thai Student Sample. *Journal of ThePsychiatric Association of Thailand*, 56(1), 59-70
15. Thongkaeo, T. & Suppapatiporn, S. (2018). Stress in workplace and its related factors among registered nurse at outpatient department of a hospital in Bangkok. *Chula Med J*, 62(2), 198-209
16. Waewkrathok, N. (2020). The association between psychosocial factors and psychological well-being at workplace among Emergency Medical Technicians. Master of Nursing Science Thesis Burapha University, Chonburi.
17. Zhou, B. (2010). Factors Affecting Nurses' Work Burnout: A Case Study of Bangkok Metropolitan Authority's Medical College Hospital and Vajira Hospital. Master of Arts Thesis, Graduate School of Social Development, School of Social and Environmental, Development National Institute of Development Administration.
18. Thongma, P & Wivatvanit, S. (2017). Factors Predicting the Well-Being of Registered Nurses in University Hospitals of the Government. *Journal of Nursing Science Chulalongkorn University*, 29(3), 30-41.
19. Suebsuk, P., Tosuksri, W., & Suwanrong, K. (2012). Factors affecting happiness at work of faculty members, Faculty of Nursing, Mahidol University. *Thai Journal of Nursing*, 61(4), 33-40.
20. Chaiyarit, P. (2015). Factors affecting happiness at work of professional nurses at community hospitals in Eastern Region. Master of Nursing Science Thesis, Department of Nursing Administration, Faculty of Nursing, Burapha University.
21. Jampasri, P. (2021). Factors Influencing Happiness in Workplace of Professional Nurses in Community Hospital, Nakhon Pathom Province. *Journal of Environmental and Community Health*, 6(3), 113-120
22. Geounuppakul, M., Tounprommarat, O. & Pienpicham, A. (2020). Factors influence happiness of personnel working at Borommarajonani College of Nursing, Bangkok, Thailand. *Journal of Health and Nursing Research*, 25(1). 151-160
23. Porbootdee, M. (2015). The relationship between an organizational commitment and intention to stay, the moderator effect of chance to development and relationship among co-worker: a case study of an

- insurance company. Master of Arts Thesis, Industrial and Organizational Psychology, Faculty of Liberal Arts, Thammasat University.
24. Harnsomskul, R. (2017). Relationships between personal factors, healthy work environments, work characteristics, with joy at work of nursing personnel in the Department of Corrections. Master of Nursing Science Thesis, Department of Nursing Administration, Faculty of Nursing, Chulalongkorn University.
 25. Taengpetch, L. (2015). The moderating effects of self-efficacy on the relation between perceived workload work relationship and job burnout. An Individual Research for Master's Degree, Thammasat University.
 26. Pukkhaow, L. (2018). Work happiness of Thai nurses in a different point of view. *Thai Journal of Nursing*, 67(2), 44-50.
 27. Chirawatkul, S. et al. (2012). Happiness and professional attachment amongst Thai registered nurses. *Thai Journal of Nursing Council*, 27(4), 26-42.
 28. Sornsuthi, S. & Aunguroch, Y. (2011). Relationships between personal factors, personality, self esteem, and work happiness of staff nurses in intensive and care units, government hospitals, Bangkok Metropolis. *Journal of The Royal Thai Army Nurses*, 12(1), 51-57.
 29. Khunphet, S. & Binyala, H. (2017). Factors Associated with Happiness in working of Professional Nurses in Operating room at Tertiary Hospital of Southern Thailand. *Princess of Naradhiwas University Journal of Humanities and Social Sciences*, 4(2), 69-80.
 30. Jangjit, S. & Smuthranond, T. (2019). Quality of Work Life, Work Life Balance and Psychological Well-Being of Registered Nurses in Medium-Sized Private Hospitals in the Bangkok Metropolitan. *Journal of The Royal Thai Army Nurses*, 20(2), 131-139
 31. Ethonchai, S. (2012). The Relationships Between Job Demands, Job Control, Social Support in Work, and Psychological Well-Being at Work of Professional Nurses at General Hospitals in Public Health Inspection Region 5. Master of Nursing Science Thesis, Nursing Administration, School of Nursing, Sukhothai Thammathirat Open University.
 32. Supaphol, S., Hongwijit, S., Someran, L., Lakhanapipat, C. & Pothakoon, P. (2021). Work environment factors and teamwork factors that affect the efficiency of work of employees of a hospital in Suphanburi Province. *Journal of MCU Social Science Review*, 10(2), 211-225.
 33. Kaewtawee, A. & Oumtanee, A. (2014). Relationships between Work-life Balance, Safety Climate and Organizational Commitment of Professional Nurses, Private Hospitals, Southern Region. *Journal of The Royal Thai Army Nurses*, 15(3), 313-320.
 34. Petchsuwan, A., Suwannapong, N., Howteerakul, N. & Boonsuya, C. (2012). Quality of working life of nurses at a private hospital. *Kuakarun Journal of Nursing*, 19(2), 103-107.
 35. Dex, S., & Bond, S. (2005). Measuring work-life balance and its covariates. *Work Employment Society*, 19, 627-636.
 36. Diener, E., Oishi, S., & Lucas, R. E. (2003). Personality, Culture, and Subjective Well-Being: Emotional and Cognitive Evaluations of Life. *Annual Review of Psychology*, 54, 403-425.
 37. Du, H., King, R. B., & Chi, P. (2017). Self-esteem and subjective well-being revisited: The roles of personal, relational, and collective self-esteem. *PLoS ONE*, 12(8), 1-17.
 38. Jaitha, A. (2016). Joy in the performance of the personnel Department of the Ministry of Justice, protection of the rights and freedoms. Pathum Thani.
 39. Manion, J. (2003). Joy at work: Creating a positive workplace. *Journal of Nursing Administration*, 33(12), 652-655.
 40. Warr, P. B. (1990 a). Decision latitude, job demands, and employee well-being. *Work & Stress*, 4(4), 285-294.