Job Satisfaction, Leader Empowering Behaviors and Work Engagement Among Nurses in Tertiary Hospitals, Kunming, the People's Republic of China

ความพึงพอใจในงาน พฤติกรรมการเสริมสร้างพลังอำนาจของผู้นำ และความผูกพันในงานของพยาบาลในโรงพยาบาลตติยภูมิ คุนหมิง สาธารณรัฐประชาชนจีน

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บทคัดย่อ

ความผูกพันในงานเป็นประโยชน์อย่างยิ่งในการส่งเสริมทำให้เกิดผลลัพธ์ที่มีประสิทธิภาพและคุณภาพการดูแลในบริการสุขภาพและบริการพยาบาล งานวิจัยแบบพรรณนาเชิงสหสัมพันธ์นี้มีจุดมุ่งหมายเพื่อศึกษาระดับความพึงพอใจในงาน พฤติกรรมการเสริมสร้างพลังอำนาจของผู้นำและความผูกพันในงาน และเพื่อศึกษาความสัมพันธ์ระหว่างความผูกพันในงานและปัจจัยที่เกี่ยวข้องสองปัจจัยคือความพึงพอใจในงานและพฤติกรรมการเสริมสร้างพลังอำนาจของผู้นำ ในพยาบาลโรงพยาบาลระดับตติยภูมิ คุณหมิง ประเทศสาธารณรัฐประชาชนจีน จำนวน 7 แห่ง เก็บรวบรวมข้อมูลโดยใช้แบบสอบถามซึ่งประกอบด้วย 4 ส่วน ได้แก่ แบบฟอร์มเก็บข้อมูลส่วนบุคคล แบบวัดความผูกพันในงานซึ่งพัฒนาโดย Schaufeli, Salanova, González-Romá and Bakker (2002) แบบวัดดัชนีความพึงพอใจในงานพัฒนาโดย Stamps (1997) และแบบสอบถามพฤติกรรมการเสริมสร้างพลังอำนาจของผู้นำ พัฒนาโดย Konczak, Stelly, and Trusty (2000) ค่าความตรงของเครื่องมือทั้งสามชนิดได้รับการตรวจสอบโดยผู้พัฒนาเครื่องมือ ค่าสัมประสิทธิ์อัลฟาของครอนบาคของแบบวัดความผูกพันในงาน แบบวัดดัชนีความพึงพอใจในงานและแบบสอบถามพฤติกรรมการเสริมสร้างพลังอำนาจของผู้นำมีค่าเท่ากับ .94, .85, และ.96 ตามลำดับ วิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณนา สัมประสิทธิ์สหสัมพันธ์แบบเพียร์สัน และสัมประสิทธิ์สหสัมพันธ์ลำดับที่ของเสปียร์แมน

ผลการวิจัยแสดงให้เห็นว่า: 1) ระดับความพึงพอใจในงานในภาพรวมของพยาบาลอยู่ในระดับควอไทล์ที่ 2 ของคะแนนรวม 2) ระดับพฤติกรรมการเสริมสร้างพลังอำนาจของผู้นำของหัวหน้าหอผู้ป่วยในภาพรวมและรายด้านตามการรับรู้ของพยาบาลอยู่ในระดับสูง 3) ระดับความผูกพันในงานในภาพรวมและรายด้านอยู่ในระดับต่ำ 4) ความพึงพอใจในงานมีความสัมพันธ์เชิงบวกอย่างมีนัยสำคัญระดับสูงกับความผูกพันในงาน 5) พฤติกรรมการเสริมสร้างพลังอำนาจของผู้นำมีความสัมพันธ์เชิงบวกอย่างมีนัยสำคัญระดับปานกลางกับความพึงพอใจในงาน

ผลจากการวิจัยในครั้งนี้ เป็นข้อมูลเบื้องต้นสำหรับผู้บริหารการพยาบาลในการนำไปพัฒนากลยุทธ์เพื่อคงไว้ซึ่งพฤติกรรมการเสริมสร้างพลังอำนาจของผู้นำในหัวหน้าหอผู้ป่วยและเพื่อปรับปรุงความพึงพอใจในงานและความผูกพันในงานของพยาบาลในโรงพยาบาลตติยภูมิทั้ง 7 แห่งในคุณหมิง ประเทศสาธารณรัฐประชาชนจีนต่อไป

คำสำคัญ: *ความผูกพันในงาน ความพึงพอใจในงาน พฤติกรรมการเสริมสร้างพลังอำนาจของผู้นำ พยาบาล, จีน*

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Abstract

Work engagement is very helpful to optimize effective outcomes and quality of care in healthcare and nursing services. This descriptive correlational research aimed to examine the level of job satisfaction, leader empowering behaviors and work engagement, and to identify the relationships between work engagement and its two related factors including job satisfaction and leader empowering behaviors among nurses in seven tertiary hospitals of Kunming, the People's Republic of China. The sample was 418 nurses having worked at least one year in these seven tertiary hospitals in Kunming. Data were collected using a questionnaire consisting of four parts: demographic data form; Utrecht Work Engagement Scale (UWES) developed by Schaufeli, Salanova, González-Romá and Bakker (2002); Index of Work Satisfaction Scale (IWS) developed by Stamps (1997); and Leader Empowering Behavior Questionnaire (LEBQ) developed by Konczak, Stelly, and Trusty (2000). The validity of the three instruments was confirmed by the developers. The Cronbach's alpha of UWES, IWS, and LEBQ were .94, .85, and .96, respectively. Descriptive statistics, Pearson's correlation coefficient, and Spearman's rank-order correlation coefficient were used for data analysis.

The results of this study showed as follows: 1) the overall job satisfaction was at the second quartiles of the possible total score; 2) the overall head nurses' leader empowering behaviors and its six dimensions as perceived by nurses were at a high level; 3)the overall work engagement and its three dimensions among nurses were at a low level; 4) there was a strong positive relationship between job satisfaction and work engagement; and 5) there was a moderate positive relationship between leader empowering behaviors and work engagement.

The findings of this research presented basic information for nursing administrators to develop strategies to maintain leader empowering behaviors of head nurses and improve job satisfaction in order to increase work engagement among nurses in seven tertiary hospitals of Kunming, the People's Republic of China.

Keywords: *work engagement, job satisfaction, leader empowering behaviors, nurse, tertiary hospital, China*

Background and Significance

Nursing plays an important role to better the quality of care and patient outcomes (You & Aiken, 2013). However, the People's Republic of China (PRC) is contending with a very serious nursing shortage compared to other countries (Cai & Zhou, 2009). There are some clear reasons for this problem. First, nursing shortage has been linked to nursing turnover (Stone, Clarke, Cimiotti, & Correa-de-Araujo, 2006). In Kunming, the P.R. China, a researcher found that 32.38% of the surveyed nurses would probably leave their job if they have a suitable choice (Li, 2011). According to the Chinese nursing employment system, there are two categories of nurse employees: permanent nurses and temporary

nurses (Shang, You, & Ma, 2014). Huang, Luo, and Chen (2014) revealed that 136 nurses quit from one hospital in Guangzhou, the P.R. China, and 94.60% of them were temporary nurses. A variety of factors predict nurses' turnover intention including group cohesion, job stress, work schedule (Asegid, Belachew, & Yimam, 2014), and work engagement (WE) (De Langea, De Witte, & Notelaers, 2008).

Engaged workers have a lot of energy, are very enthusiastic about their job, and are absorbed by their work (Van Bogaert, Wouters, Willems, Mondelaers, & Clarke, 2013). Thus, the positive outcomes of WE include increased in-role performance, extra-role performance, and personal creativity (Bakker & Demerouti, 2008). Similarly, Van Bogaert, Heusden, Timmermans, and Frank (2014) presented that WE had a direct positive effect on job outcomes and quality of care. It has also been found that disengagement was the cause of employees leaving from their job and increasing overall turnover rate (Fasoli, 2010).

Work engagement (WE) has been defined as a positive, fulfilling, work-related state of mind. It includes three dimensions: vigor, dedication, and absorption (Schaufeli, Salanova, González-Romá, & Bakker, 2002). The Utrecht Work Engagement Scale (UWES) was developed by Schaufeli et al. (2002) to measure WE. There are several factors that are related to WE, such as job demands (workload, role stress, and job insecurity), job resources (autonomy, social support, performance feedback and relationship with supervisor) (Schaufeli & Bakker, 2004), personal resources (organizational-based self-esteem and optimism) (Bakker & Demerouti, 2008), leader empowering behaviors (LEB) (Veitamana, 2014), and job satisfaction (JS) (Simpson, 2009).

Based on the theories of Herzberg and Mausner (1959) and Maslow (1943), in 1997, Stamps defined Job Satisfaction (JS) as the extent to which employees simply like their jobs. Stamps (1997) developed Index of Work Satisfaction (IWS) instrument to measure JS, and it has been used in a number of previous studies. Konczak, Stelly, and Trusty (2000) defined LEB as an approach of leaders to delegate responsibility and share information and knowledge with their followers in order to contribute to the organization, and the followers are also enabled to make decisions which can influence the organization.The Leader Empowering Behaviors Questionnaire (LEBQ) was developed based on Konczak et al. 's concept to measure LEB (Konczak et al., 2000). Several studies confirmed relationships between JS and WE, as well as LEB and WE. Job satisfaction had a strong relationship with and impact on WE among registered nurses in the US (Simpson, 2009); Veitamana (2014) also showed that there was a significant weak association between LEB and WE among nurses in Fiji.

Yunnan is a moderate-to-low economically-developed province of the P.R. China, and Kunming is the capital city of Yunnan. The Bureau of Health of Yunnan (2015) reported that there were 110,000 registered nurses at the end of 2014, and nurse-to-population ratio was 2.05:1,000, which was lower than the country's standard of 2.20:1,000 (Ministry of Health of China, 2015). There are seven tertiary hospitals

in Kunming (Bureau of Health of Yunnan, 2014). The tertiary hospital in the P.R. China has a mission to provide high quality health care services, research, education and health promotion to the population (Ministry of Health of China, 1989). The Ministry of Health of China (2010) reported that, the average number of working hours of nurses was 41.48±3.68 per week in tertiary hospitals of Kunming, which was more than the standard of national labor's regulation of 40 hours. Obviously, nurses working in tertiary hospitals face heavy workloads and high job demands whereas job demand including excessive workload can decrease employees' WE (Bakker, Schaufeli, Leiter, & Taris, 2008).

According to the regulation of the Ministry of Health of China (2011), all hospitals must be audited by the national Hospital Assurance (HA) every four years while Tertiary HA has high standard requirements. To deal with HA, all tertiary hospitals in Kunming have extended working hour regulations. Many nurses feel exhausted and have less vigor to work

Reportedly, 63.70% of the nurses had temporary employment in the seven tertiary hospitals of Kunming, which was a higher percentage than that of the permanent nurses at the end of 2015. The temporary nurses get less base salary and benefits than permanent nurses (Shang et al., 2014). Additionally, temporary nurses have less chance to be selected as a head nurse in Kunming. According to the Human Resources Statistics of the Third People's hospital of Yunnan province on June, 2016, there were 35 head nurses in this hospital, but no one was a temporary nurse. The inequalities of payment, benefits, and career advancement, therefore, might affect WE and JS among these nurses (Shang et al., 2014). The aim of this study was to study JS, LEB and WE among nurses in Kunming, the P.R. China.

Objectives of the study

This descriptive correlational research was conducted to: (1) examine the levels of JS and WE among nurses and head nurses' LEB as perceived by nurses; and (2) identify the relationships between WE and its two related factors including JS and LEB among nurses.

Conceptual Framework

The theoretical framework of this study is based on three main concepts. Job satisfaction comprises six components including pay, professional status, task requirements, autonomy, organizational policies, and interaction (Stamps, 1997). Leader empowering behaviors includes six dimensions: delegation of authority, accountability, information sharing, self-directed decision making, skill development, and coaching for innovative performance (Konczak et al., 2000). Work engagement is characterized by vigor, dedication, and absorption (Schaufeli et al., 2002). According to the literature review, nurses who have higher JS or are more supported with LEB would likely be more motivated and have higher WE in their work. The relationships between WE and its related factors including JS and LEB were examined in this study.

Methodology

A descriptive correlational research was conducted.

Population and Sample

The population of this study was 4,897 temporary nurses in seven tertiary hospitals in Kunming. The multistage sampling (LoBiondo-Wood & Haber, 2010) was used to select departments from hospitals, then clinical units were randomly chosen from the departments, Afterward, to select the sample, 444 temporary nurses who had worked at least for one year at the current unit were chosen from clinical units. After the questionnaires were distributed, finally, 426 questionnaires were returned (95.95%), and 418 (94.14%) of them were completed for data analysis.

Research Instruments

The following instruments were used in this study:

1. Demographic data form includes working department, gender, age, marital status, educational level, work duration, work hours per week, and income per month.

2. Chinese version of the 9-item Utrecht Work Engagement Scale (UWES) includes three dimensions: (1) vigor (3 items), (2) dedication (3 items), and (3) absorption (3 items). The items are scored on a 7-point Likert scale ranging from "0 = never" to "6 = always".

3. Chinese version of the 44-item Index of Work Satisfaction Scale (IWS) (Part B) consists of six dimensions: (1) pay (6 items), (2) professional status (7 items), (3) interaction (10 items), (4) task requirements (6 items), (5) organizational policies (7 items), and (6) autonomy (8 items). The responses of each question range from "1 = strongly disagree" to "7 = strongly agree".

4. The 17-item Leader Empowering Behavior Questionnaire (LEBQ) includes six components: (1) delegation of authority (3 items), (2) accountability (3 items), (3) self-directed decision making (3 items), (4) information sharing (2 items), (5) skill development (3 items), and (6) coaching for innovative performance (3 items). The items are measured on a 7-point Likert-type scale ranging from "1= strongly disagree" to "7 = strongly agree". The LEBQ was translated into the Chinese version by the researcher using translation and back-translation methods (Waltz, Strickland, & Lenz, 2005) without any modification.

Validity and Reliability of instruments

The validity of the UWES, IWS, and LEBQ was confirmed by the developers. The three factor model of the UWES-9 in Chinese version showed an acceptable fit to the data with $\chi 2$ =172.27, df = 24, $p < .01$, CFI = .93, TLI = .90 , RMSEA = .08, SRMR = .05, and AIC = 28,401.57 (Fong, 2012). The content validity of Chinese version IWS has been tested by Wu (2007), and the result was .92. Last, the results of confirmatory factor analysis on the LEBQ revealed that the six-factor model was fit based on large sample size (CFI = .96, GFI = .94, AGFI = .91, RMSR = .10, $\chi 2$ =564.92, df = 104, $p < .05$) (Konczak et al., 2000). The internal consistency reliabilities of the UWES, IWS, and LEBQ were tested and the Cronbach's alpha coefficients were .94, .85, and .96, respectively.

Data Collection Procedures

Data were collected using questionnaires during February to April, 2016 in seven tertiary hospitals in Kunming, the P. R. China. The researcher select departments from hospitals, then randomly choose clinical units from departments while the temporary nurses were selected from clinical units. The researcher asked for four coordinators and provided them relevant research information. After the subjects completed the questionnaires, the researcher or the coordinators went to each unit and collected the questionnaires with sealed envelopes within two weeks.

Data Analysis Procedures

Descriptive and inferential statistics were used to analyze the data in this study. (1) The demographic data, the levels of JS, LEB, and WE were analyzed using frequency, percentage, mean, and standard deviation. (2) Pearson's Correlation was used to test the correlation between JS and WE, and Spearman's rank-order correlation was used to analyze the relationship between LEB and WE.

Ethical considerations

The research proposal and data collection were approved by the Research Ethical Committee of the Faculty of Nursing, Chiang Mai University. Before data collection, a research consent form was sent to the subjects. They were informed that participation in the study was voluntary and they had the right to refuse, stop or withdraw from this study at any time without being punished or losing any benefits. A statement was included in a cover letter to guarantee confidentiality and anonymity of individual responses. Information provided by the subjects was only used for study and kept confidential. The results of the study were presented as a group.

Results

The results showed that 418 subjects were from eight main clinical departments and the largest group of subjects was working in medical departments (34.22%). Most of the subjects were female (96.42%), and over half of them were married (59.09%). The age of the subjects ranged from 21 to 52 years old with average age of 29.79 (SD = 6.27), and the majority of them (66.99%) were aged between 21 – 30 years old. More than half of the subjects held a bachelor's degree (57.18%). Most of the subjects (74.16%) had worked less than 10 years with work durations ranging from 1 to 36 years, with a mean of 8.14 years (SD = 6.90). The majority of the subjects (67.70%) worked 40 – 50 hours per week. The incomes of 55.01% of the subjects were between 3,000 – 5,000 RMB/ month.

Table 1 Means of Total Scale Score, Standard Deviations and the Quartiles of Job Satisfaction as Perceived by the Subjects (n = 418)

Job satisfaction	Range	Mean	SD	Quartiles	Level
Overall job satisfaction	44-308	174.77	26.35	Second	Low
Pay	6-42	18.11	6.39	Second	Low
Autonomy	8-56	34.02	6.48	Third	Moderate
Task requirements	6-42	19.44	4.13	Second	Low
Organizational policies	7-49	27.64	6.84	Second	Low
Professional status	7-49	31.72	5.48	Third	Moderate
Interaction	10-70	43.84	6.43	Third	Moderate

The overall job satisfaction as perceived by the subject was low ($\bar{X}$ = 174.77, SD = 26.35), showed in Table 1.

Table 2 Means, Standard Deviations and the Level of Leader Empowering Behaviors as Perceived by the Subjects (n = 418)

Leader empowering behaviors	Range	Mean	SD	Level
Overall leader empowering behaviors	1-7	5.81	1.00	High
Delegation of authority	1-7	5.57	1.32	High
Accountability	1-7	6.33	.84	High
Self-directed decision making	1-7	5.72	1.20	High
Information sharing	1-7	5.97	1.14	High
Skill development	1-7	5.78	1.19	High
Coaching for innovative performance	1-7	5.56	1.33	High

All leader empowering behaviors as perceived by the subject was high ($\bar{X}$ ranged from 5.56-633, SD ranged from 0.83-1.33) in Table 2.

Table 3 Means, Standard Deviations, and the Level of Overall Work Engagement as Perceived by the Subjects (n = 418)

Work engagement	Range	Mean	SD	Level
Work engagement	0-6	2.46	1.31	Low
Vigor	0-6	2.40	1.43	Low
Dedication	0-6	2.85	1.45	Low
Absorption	0-6	2.13	1.45	Low

In Table 3 showed that work engagement as perceived by the subject was low at $\bar{X}$ = 2.46 and SD = 1.31.

Table 4 Relationships between Job Satisfaction and Work Engagement and Leader Empowering Behaviors and Work Engagement (n = 418)

Factors	Work Engagement
Job satisfaction	.50**
Leader empowering behaviors	.30**

*** p < .01*

There was a strong significant positive relationship between work engagement and job satisfaction (r = 0.50, p < 0.01) (Table 4).

Discussion

Job satisfaction: This study showed that the subjects perceived the total scale score of JS at the second quartile, which represents a low level. The total scale score of JS in this study is lower than previous studies in Canada (Glallonardo et al., 2010) and in the US (Adwan, 2014). However, it is higher than two studies in Bangladesh (Latif et al., 2010) and in the US (McGlynn et al., 2012). The first explanation of low JS is high workload among nurses in the P.R. China. The second possible explanation is that nurses have a high level of burnout in the P.R. China (Lu et al., 2015). According to the statement of Laschinger, Leiter, Day, and Gilin (2009), burnout negatively predicted nurses' JS. The third reason is that temporary nurses lack opportunities to participate in the three- or six-month training of the hospital in comparison with permanent nurses. The unequal and discriminatory decisions from head nurses to temporary nurses could be the fourth reason of low JS in this study.

Leader empowering behaviors: In this study, LEB as perceived by respondents was at a high level. This finding is similar to the study of Jin, Shi, and Cui (2014) in the P.R. China. However, it is incongruent with the study of Veitamana (2014) which presented at moderate level among general nurses in Fiji. The first possible explanation for the above finding is that in order to improve staff satisfaction and quality of health care, the nursing administrators at the seven tertiary hospitals in Kunming were struggling in changing the management style, such as providing lots of courses for head nurses to update their management knowledge and skills. On the other hand, many head nurses were promoted from staff nurses via competition instead of being assigned by hospital administrators and this competition base on their great management skills and educational degree. These two reasons may indicate greater managerial competence and better empowering awareness with current head nurses in Kunming.

Work engagement: In this study, the subjects perceived the overall WE at a low level. This result is similar to Lu et al.'s finding (2011) in the P.R. China. However, it is lower than those findings which were reported by Othman et al. (2011) and Krishnan et al. (2013)

in Malaysia, Bamford et al. (2013) in Canada, and Wang et al. (2015) and Feng (2012) in the P.R. China. The first consideration of this finding is nurses' heavy workload in tertiary hospitals of Kunming. When nurses have work overload, they would feel exhausted and less engagement with work (Bakker et al., 2008). The next possible reason is insufficient rewards from managers among nurses in Kunming. The scholars summarized that one of the predictors for WE among nurses was insufficient rewards (Thian, Kannusamy, & Klainin-yobas, 2013). Next, social support has been found to be an antecedent to engagement (Schaufeli & Bakker, 2004). Feng (2012) indicated that nurses' organizational support was at a moderate level in Kunming. It means that low organizational support could have affected low WE in this study. The next barrier of WE is unequal chance to be selected as a head nurse and unequal payment between temporary nurses and permanent nurses in tertiary hospitals of Kunming. Moreover, another possible explanation of low WE in this study is the high level of stress in the nurses' roles. Many roles with high stress make most female nurses somewhat disengage in their work. In addition, medical violence may be the next explanation of low WE in this study. In recent years, medical violence from patients or patients' relatives frequently happens in Chinese hospitals, which leads to nurses' physical and mental harm. As a result, they feel insecure at the workplace, and this decreases nurses' WE in Kunming.

Relationship between JS and WE: The findings of this study showed a strong positive correlation between JS and WE among the subjects. This finding implies that when the subjects are satisfied with their job, they will engage in their work. This result is similar to the findings of Glallonardo et al. (2010) and Simpson (2009). According to the Job Resources-Demand model (Bakker & Demerouti, 2008), job resources is an antecedent of WE. Bargagliotti (2012) defined nursing job autonomy as one kind of job resources. It means that high job resources including job autonomy positive predict WE. Contrarily, in this study, the findings showed that only 31.60% of the subjects agreed with the statement that they had the freedom in their work to make decisions. This finding may link to low WE in this study. In addition, according to Worf (1970)'s definition, JS is fulfillment of needs. It means that if nurses are satisfied with their job, their needs are fulfilled from their job. Schaufeli and Bakker (2004) stated that the satisfaction with basic needs results in positive engagement likely occurring. Furthermore, in this study, 71.50% of the subjects agreed (level 5 to level 7) that physicians generally cooperated with nursing staff. This finding implies that when the nurses are satisfied with great cooperative relationships between physicians and other nurses, they will feel relaxed and happy at the workplace and feel their job becomes more interesting, and they would like to go to work daily.

Relationship between LEB and WE: The findings of this study presented moderate positive correlation between LEB and WE among the subjects. It indicates that the subjects will be engaged in their work when they perceive

empowering behaviors from their head nurse. This result is supported by the study of Veitamana (2014) which was conducted among nurses in Fiji. Based on the Job Demands–Resources model, job resources include decision involvement which can positively predict the experience of WE (Bakker & Demerouti, 2008). Likewise, through leadership empowerment behaviors, employees' responsibility and decision-making authority are increased (Johnson, 1994). This may imply that if a head nurse empowers staff nurses to be involved in making self-decisions and encourages them to try out new ideas, they will feel inspired and contribute more valuable opinions, as well as become more dedicated to their work. In addition, leader empowerment behaviors allow employees freedom to choose the way in which tasks are executed and encourage them to care about the work they deliver while instilling a sense of competence, ensuring that their ideas are considered (Appelbaum, Hébert, & Leroux, 1999), and making them feel that their work is significant.

Conclusion

The results of this study indicated that overall JS was at the second quartile, which represents a low level of JS, and overall head nurses' LEB was at a high level. However, the overall WE was at a low level. There was a statistically significant strong positive relationship between JS and WE. Similarly, there was a statistically significant moderate positive relationship between LEB and WE.

Implications

The findings of this research present basic information for nursing administrators regarding the current situations on JS, LEB, and WE. Firstly, based on the findings, the hospital and nursing administrators may have evidence to improve temporary nurses' JS, especially to improve the satisfaction with pay, organizational policies, and task requirements. Secondly, head nurses ought to continue to empower their subordinates. These solutions could be helpful to enhance temporary nurses' WE. Finally, nursing administrators need to establish other strategies to enhance temporary nurses' WE.

Recommendations for future research

According to the findings of this study, the researcher proposed the following recommendations: (1) Replicate this study among permanent nurses in seven tertiary hospitals in Kunming. (2) Replicate this study among temporary nurses in secondary hospitals in Yunnan province, the P.R. China. (3) Conduct predictive research of WE among nurses in the P.R. China.

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