Emotional Labor and Work Engagement of Temporary Nurses in Affiliated Hospitals
of Kunming Medical University, The People's Republic of China*
การแสดงออกทางอารมณ์ขณะทำงานและความผูกพันในงานของพยาบาลลูกจ้างชั่วคราวในโรงพยาบาล
ในเครือของมหาวิทยาลัยการแพทย์คุนหมิง สาธารณรัฐประชาชนจีน*

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บทคัดย่อ

การศึกษาเชิงพรรณนาแบบหาความสัมพันธ์ครั้งนี้มีเป้าหมายเพื่อศึกษาความสัมพันธ์ระหว่างการแสดงออกทาง
อารมณ์ขณะทำงานและความผูกพันในงานของพยาบาลในโรงพยาบาลแพทย์คุนหมิง สาธารณรัฐประชาชนจีน
กลุ่มตัวอย่างคือพยาบาลที่ปฏิบัติงานใน 3 โรงพยาบาลในเครือของมหาวิทยาลัยการแพทย์คุนหมิงจำนวน 366 ราย
เครื่องมือที่ใช้ในการวิจัยประกอบด้วย แบบวัดความผูกพันในงานยูเทรชท์พัฒนาโดยสกอฟเฟลี่และแบคเกอร์
(Schaufeli & Bakker, 2003) และแบบวัดการแสดงออกทางอารมณ์ขณะทำงานพัฒนาโดยไดเฟนดอร์ฟและคณะ
(Diefendorff et al., 2005) ค่าสัมประสิทธิ์แอลฟ่าของครอนบาคของแบบวัดความผูกพันในงานยูเทรชท์ และ
ทั้งสามรูปแบบของการแสดงออกทางอารมณ์ขณะทำงานเท่ากับ เท่ากับ .81, .83, .58 และ .92 ตามลำดับ วิเคราะห์
ข้อมูลด้วยสถิติเชิงพรรณนาและสัมประสิทธิ์สหสัมพันธ์แบบลำดับที่ของสเปียร์แมน

ผลการศึกษาพบว่า พยาบาลในโรงพยาบาลในเครือของมหาวิทยาลัยการแพทย์คุนหมิง สาธารณรัฐประชาชน
จีนแสดงอารมณ์ขณะทำงานแบบการแสดงออกจากอารมณ์ที่แท้จริง ($\bar{X}$ = 3.59, SD = .75) และแบบการปรับความรู้สึก
ภายในให้สอดคล้องกับการแสดงออกภายนอก ($\bar{X}$ = 3.56, SD = .68) บ่อยครั้งกว่าแบบการแสร้งแสดงความรู้สึก ($\bar{X}$ = 2.86,
SD = 0.71) พยาบาลรับรู้ความผูกพันในงานในระดับต่ำ ($\bar{X}$ = 2.80, SD = 1.04) ความผูกพันในงานมีความสัมพันธ์ในทาง
บวกอย่างมีนัยสำคัญทางสถิติกับการแสดงออกอารมณ์ขณะทำงานแบบการแสดงออกจากอารมณ์ที่แท้จริง (rs=.36,
p < .01) และแบบการปรับความรู้สึกภายในให้สอดคล้องกับการแสดงออกภายนอก (rs=.42, p < .01)

ผลการศึกษานี้สามารถใช้เป็นข้อมูลพื้นฐานสำหรับผู้บริหารทางการพยาบาลในการกำหนดโปรแกรมในการ
อบรมพยาบาลในการแสดงออกทางอารมณ์ที่เหมาะสมที่จะช่วยปรับปรุงความผูกพันในงานของพยาบาลให้ดีขึ้น

คำสำคัญ: การแสดงทางอารมณ์ขณะทำงาน ความผูกพันในงาน พยาบาล สาธารณรัฐประชาชนจีน

Abstract

This descriptive correlational study aims to explore the relationship between emotional labor and work engagement of nurses in affiliated hospitals of Kunming Medical University, The People's Republic of China. The samples were 366 nurses working in three affiliated hospitals of Kunming Medical University. Research instruments consisted of the Utrecht Work Engagement Scale developed by Schaufeli and Bakker (2003) and the Emotional Labor Scale developed by Diefendorff et al. (2005). The Cronbach's Alpha Coefficient of the Utrecht Work Engagement Scale and the three forms of emotional labor scale were .81, .83, .58, and .92, respectively. Descriptive statistics and Spearman's Rank-Order Correlation analysis were used for data analysis.

The results revealed that nurses in affiliated hospitals of Kunming Medical University, the People's Republic of China performed expression of genuine emotions ($\bar{X}$ = 3.59, SD = .75) and deep acting ($\bar{X}$ = 3.56, SD = .68) more frequently than surface acting ($\bar{X}$ = 2.86, SD = .71). Work engagement perceived by nurses was at a low level ($\bar{X}$ = 2.80, SD = 1.04). Work engagement had a significant positive relationship with expressions of genuine emotions (rs = .36, p < .01) and deep acting (rs = .42, p < .01).

The results of this study can provide foundational information for nursing administrators to create a program to train nurses to use appropriate forms of emotional labor which will improve their work engagement.

Keywords: Emotional labor, Work engagement, Nurses, The People's Republic of China

Background and Significance

The nursing shortage is a worldwide issue (International Council of Nurses, 2006). The ratio of nursing and midwifery per 1,000 people in China was 3.18 in 2019 (Xinhua net, 2021), which is much lower than 9.8 in the United States and 11.49 in Japan (WHO, 2020). Insufficient numbers of hospital nurses can increase the workload of all nurses (Yun, Jie, & Anli, 2010) which affects work engagement (Aiken et al., 2012). Moreover, the shortage of nurses leads healthcare organizations to employ temporary nurses for maintaining an adequate nurse-patient ratio (Bae, Mark, & Fried, 2010). In Yunnan province, China, five affiliated

hospitals of Kunming Medical University (KMU) provide tertiary care. From 2012 to 2017, the number of temporary nurses rose from 48% to 73% in the affiliated hospitals of KMU (Nursing director, personal communication, December 20, 2017). Temporary nurses at the affiliated hospitals have heavier workloads than other nurses because they have double identities to deliver nursing care for patients, as well as to mentor nursing students and new nurses (The First Affiliated Hospital of KMU, 2017). Furthermore, temporary nurses are paid less, and have little or no additional welfare support (Sohu net, 2020). Workplace inequality was shown to be related to turnover intention (Geurts,

Schaufeli, & Rutte, 1999) which can influence the work engagement of healthcare employees (Shahpouri, Namdari, & Abedi, 2016).

Work engagement was defined by Schaufeli, Salanova, Gonz´alez-rom´a, and Bakker (2001) as a positive, fulfilling, and work-related state of mind. It is characterized by vigor, dedication, and absorption. Vigor is characterized by high levels of energy and mental resilience while working. Dedication refers to being strongly involved in one's work and experiencing a feeling of significance, enthusiasm, inspiration, pride, and challenge. Absorption is characterized by being fully concentrated and happily engrossed in one's work, whereby time passes quickly, and one has difficulties detaching oneself from work (Schaufeli et al., 2001). An engaged workforce delivers better organizational performance and high-quality service (Bakker & Demerouti, 2007). It can increase a lot of nursing outcomes even when nursing staff is in short supply (Nahrgang, Morgeson, & Hofmann, 2011). However, researchers have found that while the overall work engagement in the healthcare field of other countries was at average (Veitamana, Abhicharttibutra, & Wichaickhum, 2017) to high levels (Sarti, 2014), work engagement for Chinese nurses was lower (Wang, Liu, Zou, Hao, & Wu, 2017) and also lower than that of other professionals (Huang et al., 2012).

To improve work engagement, the factors related to work engagement were considered, and this study focused on emotional labor, since nurses put a lot of effort on performing emotional regulation, which will impinge on

their efforts to engage in work (De Castro, Agnew, & Fitzgerald, 2004). Furthermore, healthcare workers frequently face various job stressors. For instance, effort-reward imbalance, role conflict, and unsatisfactory nurse-patient relations (Zeng, 2009). Surface acting is a maladaptive strategy that increases emotional dissonance (Mikolajczak, Menil, & Luminet, 2007) and is associated with job stress (Yoon & Kim, 2013). In China, there is a clear problem of clinical violence. In 2016, 41.20% of nurses suffered violence from patients or the patients' families (China Social Welfare Foundation, 2017). Encountering clinical violence affects the emotional expression of nurses in their work (Hammarström, Häggström, Devik, & Hellzen, 2019).

Emotional labor was defined by Ashforth & Humphrey (1993) as the act of displaying appropriate emotions, with the goal to engage in a form of impression management for the organization. It has three forms: surface acting, deep acting, and expression of genuine emotions. Surface acting is when people modify their expressions or behavior to satisfy customers without convincing their inner feelings to do so. Deep acting is when one attempts to actually experience or feel the emotions that one wishes to display. Expression of genuine emotions is spontaneous and one genuinely experiences and expresses the desired emotions. Emotional labor is important for healthcare discipline. Particularly, nurses are expected to show empathy, compassion and genuine caring and to avoid presenting negative feelings to their patients who are frequently in severe pain or terminally

ill, as well as the patients' anxious family members (Mann, 2005). When nurses must manage their experience and expression of emotions to reach organizational regulations of displaying specific emotions and concealing or restraining others, nurses perform emotional labor (Schmidt & Diestel, 2015). Up to now, little is known about emotional labor in Asian culture, and only a few studies are found in the nursing field. (Adeniji, Akanni, & Ekundayo, 2015) conducted a study on 166 nurses in two teaching hospitals in Nigeria. Results showed male nurses used surface acting ($\bar{X}$ = 34.47, SD = 4.95) more than female nurses ($\bar{X}$ = 32.32, SD = 5.84). The few studies exploring the relationship between emotional labor and work engagement found that work engagement was positively related to expression of genuine emotions (Cheung & Lun, 2015) and deep acting (Cheung & Lun, 2015; Mroz & Kaleta, 2016), and negatively related to surface acting (Mroz & Kaleta, 2016). However, a relationship between emotional labor and work engagement has not been found in Chinese nurses. Therefore, this study investigated emotional labor, work engagement and the relationship between each form of emotional labor and overall work engagement. The results of this study can provide information to understand the emotional labor and improve the work engagement of temporary nurses working in the affiliated hospitals of KMU.

Objectives

1. To explore the emotional labor of temporary nurses in affiliated hospitals of Kunming Medical University, The People's Republic of China.

2. To explore the work engagement of temporary nurses in affiliated hospitals of Kunming Medical University, The People's Republic of China.

3. To examine the relationship between each form of emotional labor and overall work engagement of temporary nurses in affiliated hospitals of Kunming Medical University, The People's Republic of China.

Conceptual Framework

The conceptual framework was based on concepts of emotional labor and work engagement. According to Ashforth & Humphrey (1993) emotional labor was defined as the act of displaying appropriate emotions, with the goal to engage in a form of impression management for the organization. It includes three forms: surface acting, deep acting, and expression of genuine emotions. Schaufeli et al. (2001) conceptualized work engagement as a positive, fulfilling, and work-related state of mind which is characterized by vigor, dedication and absorption. Forms of deep acting and expression of genuine emotions of emotional labor would be positively related to work engagement, whereas, a form of surface acting of emotional labor would be negatively related to work engagement.

Methodology

A descriptive correlational study was designed among temporary nurses who worked in the five affiliated hospitals of Kunming Medical University.

Population and samples

The population of 4,065 temporary nurses who worked in the five affiliated hospitals of KMU. According to the formula of Yamane (1973), with an added 20% (Best & Kahn, 2003), the sample size was 437 temporary nurses. Three out of the five affiliated hospitals were selected according to the ratio of 2:1 of directly and indirectly affiliated hospitals. Then, the number of temporary nurses was determined from each hospital and each unit. Temporary nurses who had worked for more than one year were included in the study. Since this study intended to inspect the emotional labor of temporary nurses when they were in contact with patients and their families, nurses who worked in the operating room were excluded.

Research Instruments

The research instruments in this study consisted of three parts: 1) The demographic data form which included gender, age, marital status, educational level, years of working, department, and work shift; 2) The Emotional Labor Scale developed by Diefendorff, Croyle, & Gosserand (2005) which was translated into Chinese by the researcher. This has three forms: surface acting (7-items), deep acting (4-items), and expression of genuine emotions (3-items) with a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). A higher mean score for each scale indicated more frequent use of that emotional labor form. 3) The Chinese version of the 9-item Utrecht Work Engagement Scale developed by Schaufeli and Bakker (2003) consisting of three subscales: vigor (3-items), dedication (3-items), and absorption (3-items) with a 7-point Likert scale ranging from 0 (never) to 6 (always). A higher score meant a higher level of engagement. The levels of work engagement were classified as follows:

	Vigor	Dedication	Absorption	Total score
Very low	≤ 2.00	≤ 1.33	≤ 1.17	≤ 1.77
Low	2.01 - 3.25	1.34 - 2.90	1.18 - 2.33	1.78 - 2.88
Average	3.26 - 4.80	2.91 - 4.70	2.34 - 4.20	2.89 - 4.66
High	4.81 - 5.65	4.71 - 5.69	4.21 - 5.33	4.67 - 5.50
Very high	≥ 5.66	≥ 5.70	≥ 5.34	≥ 5.51

The validity of the two scales was tested by their original authors. Fifteen temporary nurses were used for the pilot study to test the reliability. The Cronbach's alpha coefficient values in this study were .91 for overall work engagement, and .81, .79, and .77 for surface acting, deep acting, and expression of genuine emotions, respectively.

Ethical Consideration

The research project was approved by the Research Ethics Review Committee of the Faculty of Nursing, Chiang Mai University, Thailand (No.016/2018) and the directors of the nursing departments in the affiliated hospitals of KMU, Yunnan province, The People's Republic of China. All participants voluntarily

participated and could refuse, stop, or with-draw from this study freely at any time without punishment or loss of benefits. A statement was included on the information sheet to keep confidentiality and anonymity of individual answers. The information of the participants was only used for the study and the results were presented as a group. The temporary nurses who agreed to participate in the study signed a consent form.

Data Collection

Official letters were sent from the Research Ethics Review Committee of the Faculty of Nursing, Chiang Mai University, Thailand to the directors of nursing in the Affiliated Hospitals of KMU, Yunnan province, The People's Republic of China to ask permission for data collection. After receiving permission to collect data, the researcher explained the research objectives, benefits and data collection procedures to the two research coordinators who were appointed by their nursing directors. The researcher and research coordinators then distributed the packages including the information sheet, the consent forms, the questionnaires, and two envelopes to the participants. Return boxes were put in each department. After two weeks, 395 (90.39%) questionnaires were returned, with 382 (87.41%) completed, among which 366 (83.75%) were used for data analysis.

Data Analysis

SPSS 13.0 was used for data analysis. Demographic data were analyzed by using frequency, percentage, mean, range and standard deviation. The scores for emotional labor and work engagement were analyzed using mean and

standard deviation. The Kolmogorov-Smirnov test was used to test the normality of the data. Work engagement and surface acting were normally distributed (p > .05), while deep acting and expression of genuine emotions were not normally distributed (p < .05). The relationship between work engagement and each form of emotional labor was analyzed using Spearman's rank-order correlation analysis.

Results

Nearly all (92.08%) of the temporary nurses were female. The average age of these nurses was 31 (SD = 6.70) years old, and 55.46% of the temporary nurses were between the ages of 21 and 30 years old. More than half (63.39%) of the temporary nurses were married. Almost 75% of the temporary nurses had a bachelor's degree and 52.19% were senior nurses. They had worked for an average of 8.70 years (SD = 7.63). About 30% worked in the medical department and 30% in the surgical department. 78.14% of temporary nurses worked on rotating shifts. A little more than half (50.27%) of the temporary nurses had incomes between 4001 and 6000 yuan per month.

The results also showed that temporary nurses more frequently used expression of genuine emotions ($\bar{X}$ = 3.59, SD = 0.75) and deep acting ($\bar{X}$ = 3.56, SD = 0.68) forms of emotional labor than surface acting ($\bar{X}$ = 2.86, SD = 0.71). In addition, the overall work engagement of temporary nurses was at a low level ($\bar{X}$ = 2.80, SD = 1.04). For the dimensions, vigor was at a low level ($\bar{X}$ = 2.81, SD = 1.08), whereas dedication ($\bar{X}$ = 3.20, SD = 1.08) and absorption

($\bar{X}$ = 2.41, SD = 1.25) were at average levels.

There was a significant positive relationship between work engagement and deep acting, as well as work engagement and expression of genuine emotions. However, the relationship between work engagement and surface acting was not statistically significant (Table 1).

Table 1 Relationships Between Each Form of Emotional Labor and Work Engagement (n = 366)

	Work engagement
Deep acting	.416 **
Expression of genuine emotions	.361 **
Surface acting	-.002

**p < .01

Discussion

This study aimed to explore emotional labor, work engagement and the relationship between each form of emotional labor and overall work engagement of temporary nurses in affiliated hospitals of Kunming Medical University, The People's Republic of China. The discussion follows the three objectives.

1. Emotional labor

Expression of genuine emotions. The results of this study revealed that temporary nurses frequently used expressions of genuine emotions as an emotional labor strategy. One reason may be the goals of affiliated hospitals of KMU which are to provide nursing services to satisfy the patients, the staff, and society (The First Affiliated Hospital of KMU, 2017). These goals are transferred to the temporary nurses. Therefore, temporary nurses agree with the hospitals' goals, and they love to try for the sake of the hospitals by committing to express their true emotions. Another probable reason may be because of the trend of temporary nurses to avoid faking feelings. Honesty is viewed by Chinese people as a good personal trait, and nurses are morally driven to establish trustworthy and authentic relationships with their patients (De Raeve, 2002). Additionally, nursing professionals need empathy when they care for patients because they want to express their empathy to patients, so that they do not need to fake their emotions (De Castro et al., 2004). Essentially, expression of genuine emotions expends less effort by performing basic emotions which occur as an automatic response to stimuli with unconscious control (Izard, 2009); thus, temporary nurses choose this emotional labor form as a priority.

Deep acting. The results of this study showed that temporary nurses frequently used deep acting as an emotional labor strategy. One potential reason is that temporary nurses follow the hospital's display rules of nursing service to express positive emotions to patients. They shape or suppress their feelings to accommodate these standards though they may not agree with them (Hochschild,1983). Another potential reason is that the frequency

of temporary nurses' interactions with patients increases their usage of deep acting, for the process to regulate emotions involves cognitive activities which are changed by training and practice (Totterdell & Parkinson, 1999). Moreover, nurse-patient interaction influences temporary nurses toward the use of deep acting. Wolkomir &Powers (2007) found that nurses adjusted their emotions differently based on the patients' categories. In affiliated hospitals of KMU, many patients contract diseases because they have little health literacy and do not know how to take care of themselves. Thus, temporary nurses tend to use deep acting in order to reach positive outcomes (Martinez-Inigo, Totterdell, Alcover, & Holman, 2007). Another reason may be the age difference between different groups of temporary nurses. In this study, the average age of temporary nurses was 31 years old in which 43.99% of the temporary nurses were above the age of 30. As they become older, adults are conscious of their restricted future time and motivated to focus on the present through maximizing positive feelings as well as minimizing negative feelings (Carstensen, Isaacowitz, & Charles,1999). With deep acting, older temporary nurses try to align their emotions with the positive display rules to actually feel this emotion. Thus, they were most likely to utilize deep acting to meet their emotional goals.

Surface acting. The results showed that the surface acting form of emotional labor was not frequently used by temporary nurses. One reason may be that temporary nurses would like to avoid surface acting to protect

their personal reserves. In affiliated hospitals of KMU, temporary nurses are motivated to maintain resources and save energy for doing their heavy clinical work. However, the hiding and faking of emotions demands effort and depletes their resources (Brotheridge & Lee, 2002). Additionally, faking emotions may harm temporary nurses' health. Depicting emotions that are not authentically felt raises mental and physical efforts (Robinson & Demaree, 2007) and negatively affects employees' well-being and health (Hulsheger & Schewe, 2011). Another possible reason is due to the gender difference. Females accounted for 92.08% of the nurses in this study, making them more likely to use deep acting form of emotional labor (Adeniji et al., 2015). Compared to males, females have slightly larger gray matter volumes in the ventrolateral and lateral orbitofrontal cortex (Good,Johnsrude, Ashburner,Henson, Friston,& Frackowiak, 2001), which play critical roles in re-appraisal of emotional stimuli (Johnstone, Van Reekum, Urry, Kalin, & Davidson, 2007), as well as in the superior temporal sulcus, which plays a critical role in social cue perception (Pelphrey & Carter, 2008). Thus, females may reappraise the situation and regulate their emotions better than males.

In this study, expression of genuine emotions and deep acting were used more often than surface acting. Results of this study are consistent with the studies of Shao et al. (2016) and Chen &Wang (2014) where expression of genuine emotions was more frequently used by nurses in Zhejiang and Guangdong province; and different with the study by Li, Yan, Yang &

Wu (2016) who found that surface acting was more frequently used by nurses in Xin'jiang province, in China.

2. Work engagement

The results of this study showed the overall work engagement of temporary nurses was at a low level. This means that they felt a low level of energy, were not energetic, and could not fully concentrate on their work. One reason could be the shortage of nurses, whereas, with patient numbers growing, tasks of research and education of temporary nurses in affiliated hospitals lead them to have a heavy workload. Workloads drain energy (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001), as only 11.48% of the temporary nurses very often or always felt that they were bursting with energy at work. Moreover, routine tasks, low remuneration and welfare, and limited learning opportunities impair temporary nurses' work engagement. Temporary nurses cannot be deeply involved in work because they have the equivalent tasks as permanent nurses but receive unequal pay. Another explanation may be the work-life balance. More than half (56.01%) of temporary nurses were under 31 years old, 92.08% of them were female and 63.39% of them were married. Women's obligations at home drain their efforts and sometimes reduce the energy they allocate to work (Feng, Akkadechanunts, & Chontawan, 2012). Additionally, 78.14% of temporary nurses worked in rotating shifts. Night-shift nurses have higher emotional exhaustion levels than day-shift nurses because they work against their circadian rhythm (Demir, Ulusoy, & Ulusoy, 2003). Moreover, 46.72% of

temporary nurses had less than five years of experience in this study. Experienced nurses are more engaged in their work because they know better about the potential danger of nursing interventions and are more cautious and meticulous about the situation whereas inexperienced nurses may feel safe and trouble-free.

The results of this study are consistent with the study of Wang et al. (2017) that work engagement of nurses was at low levels, and different from other studies that found work engagement in the healthcare field was at average to high levels (Guptav, Agarwal, & Khatri, 2016).

3. Relationship between forms of emotional labor and overall work engagement

The results of this study revealed a positive relationship between expression of genuine emotions and work engagement. The explanation may be that people tend to express their true selves. When temporary nurses display their genuine emotions to meet hospitals' goals and to achieve good job performance, they feel proud of themselves and realize the significance of their jobs (Hochschild,1983). In this way, temporary nurses find meaning and inspiration in their work and are more dedicated to their work.

The positive relationship between deep acting and work engagement can be explained as the genuine emotions of temporary nurses causes stress for them. When nurses adopt a deep acting form of emotional labor, this stress is interpreted as a challenging job demand which requires a lot of their effort but promotes personal growth and achievement for them (LePine, Podsakoff, & LePine, 2005). Temporary

nurses thus take a positive attitude to "act in good faith" and will take an action early to play in an antecedent-focused procedure (Grandey, 2000), where the stress reaction makes them better equipped to handle the challenge. Temporary nurses thus feel their job is meaningful which can promote their personal achievement and make them more dedicated to the job. Results of this study are consistent with previous studies that showed work engagement was positively related to expression of genuine emotions (Cheung & Lun, 2015) and deep acting (Cheung & Lun, 2015; Yoo & Arnold, 2014), and was negatively related to surface acting (Yoo & Arnold, 2014).

Conclusions and Recommendations

The study results showed temporary nurses in affiliated hospitals of Kunming Medical University, The People's Republic of China performed the emotional labor forms of expression of genuine emotions and deep acting more than surface acting. The overall work engagement was at a low level. For each subscale, vigor was at a low level, while dedication and absorption were at average levels. There was a moderate positive relationship between work engagement and expression of genuine emotions, and work engagement and deep acting.

Conclusions and Implications

The results of this study can be used as fundamental knowledge for improving work engagement in which head nurses should consider improving nursing schedules, payment and benefits, and learning opportunities for tempo-

rary nurses. For emotional labor, hospital and nursing managers should develop an emotional management program to train nurses to use expression of genuine emotions and deep acting forms of emotional labor strategies to contact patients, and decrease the use of surface acting to avoid its consequences on health.

Recommendations for further research

According to the results of this study, the authors suggest conducting a predictive study on the factors of work engagement among temporary nurses, as well as a qualitative study for a better understanding of nurses' emotional labor and work engagement.

Acknowledgements

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