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Research Article

Burnout Study of Clinical Nurses in Vietnam: Development of Job Burnout Model Based on Leiter and Maslach's Theory

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ABSTRACT

Purpose: This study aimed to create a Vietnamese version of both the Maslach Burnout Inventory-General Survey (MBI-GS) and Areas of Worklife Scale (AWS) to assess the burnout state of Vietnamese clinical nurses and to develop a causal model of burnout of clinical nurses.
Methods: We conducted a descriptive design using a cross-sectional survey. The questionnaire was hand divided directly by nursing departments to 500 clinical nurses in three hospitals. Vietnamese MBI-GS and AWS were then examined for reliability and validity. We used the revised exhaustion +1 burnout classification to access burnout state. We performed path analysis to develop a Vietnamese causal model based on the original model by Leiter and Maslach's theory.
Results: We found that both scales were reliable and valid for assessing burnout. Among nurse participants, the percentage of severe burnout was 0.7% and burnout was 15.8%, and 17.2% of nurses were exhausted. The best predictor of burnout was "on-duty work schedule" that clinical nurses have to work for 24 hours. In the causal model, we also found similarity and difference pathways in comparison with the original model.
Conclusion: Vietnamese MBI-GS and AWS were applicable to research on occupational stress. Nearly one-fifth of Vietnamese clinical nurses were working in burnout state. The causal model suggested a range of factors resulting in burnout, and it is necessary to consider the specific solution to prevent burnout problem.

Introduction

Stress is an important phenomenon that is related to an individual's physiological and psychological behavior [1]. In Vietnam, stress is rising as a common problem which has been studied in variety of fields, such as psychology, physiology, and medical aspect. But the research on job stress was still limited [2]. Different individuals of job stress, such as general workers or medical staff, were examined. Typically, Pham investigated work-related depression at a shoe-manufacturing factory [3]. According to Nguyen and Ta's survey in 2005 implemented at three central hospitals, doctors had the highest stress levels compared with nurses and other health workers [2]. In their research on nurses, Le, Tran, and Tran [4] found that nearly half of nurses had high stress. High level of job stress may result in burnout. The job burnout among clinical nurses in Vietnam has been concerned, but no study has been found at all.

The Vietnamese researchers used several different measurement scales to assess stress level. Le et al [4] applied the questionnaire by Fontana [5] to stress evaluation although they did not examine the validity and reliability of this scale. The instrument that has been validated to measure job stress in Vietnam is the Job Content Questionnaire (JCQ) by Karasek [6]. In fact, a group researcher produced a valid Vietnamese version of the JCQ [7], which was used in the research by Pham [3] to evaluate job stress in shoe factory workers.

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Worldwide, many job stressor instruments have been available, such as The National Institute for Occupational Safety and Health (NIOSH) [8], JCQ [6], and Areas of Worklife Survey (AWS) [9]. According to the NIOSH, job stress can be defined as the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker. Job stress can lead to poor health and even injury. The NIOSH has created the NIOSH general job stress questionnaire including both job stress and job stressor measurement. The JCQ preferred to mention on three sub-domains of psychological demands, decision latitude, and social support at work. Leiter and Maslach [10] identified six key domains that lead to burnout; then, the AWS has been generated and suggested as a reasonable scale to estimate burnout at work. AWS's validity and reliability have been shown in USA, Canada, Finland, and Italy [10]. However, only the JCQ has been translated and validated in Vietnam, impeding further progress in research. Because there is a need for more scales to be translated and validated for research purposes in Vietnam, in this study, a Vietnamese version of the AWS will be generated.

To deal with job stress, a number of job stress measures are recommended. The General Health Questionnaire [11] is used to detect psychological issues such as depression or anxiety. It assesses the respondent's current state and asks if that differs from his or her usual state. It is therefore sensitive to short-term psychiatric disorders but not long-standing attributes of the respondent. Further, the Maslach Burnout Inventory (MBI) [12] has been used in many studies to assess burnout level. The MBI has been adapted to many kinds of people with different scales of MBI-Human Services Survey for human service professions, MBI-Educator Survey for educator, and MBI-General Survey (MBI-GS) for general workers [13]. The MBI has not been introduced to researchers on occupational stress in Vietnam. This study will be the first to translate and examine the MBI-GS for validation in Vietnam. It is essential to assess job stressor and stress with globally used scales for further development of occupational health in Vietnam.

Our objectives are as follows. First, we create a Vietnamese version of MBI-GS and AWS. Then, we assess the burnout state of Vietnamese clinical nurses using the translated MBI-GS. Finally, we develop a causal model of burnout among clinical nurses in Vietnam using two scales. We apply Leiter and Maslach's theory [10] to our frame work.

Leiter and Maslach developed the causal model of burnout. They collected data from a normative sample in USA, Canada, Finland, and Italy which included health-care professionals such as nurses, using the MBI-GS and AWS. Furthermore, they tested the model applying to Canadian nurses. Therefore, Leiter and Maslach's model might be working in describing nurses' burnout in Vietnam.

Methods

Study design

A cross-sectional study was used to carry out the survey.

Setting and sample

Participants were clinical nurses working in different departments at three public hospitals in Hai Phong, Vietnam: one general hospital and two specialty hospitals (a children's hospital and an obstetric hospital).

Ethical considerations

Nurse participants in this survey were volunteers and were anonymous. Participants fully understood the research and agreed to respond to the questionnaire. Instruments using in this study has been approved according to Permissions Letter issued by Mind Garden. This study was approved by the Kanazawa University Medical Ethics Committee, Japan (Approval no. 649-1) dated on January 6, 2016. This research conforms to the provisions of the Declaration of Helsinki in 1995 (as revised in Edinburgh 2000). We obtained the consent of the managing board of the three hospitals and departments before implementing the survey.

Measurements

Three sets of questionnaires were administered to the participants: (1) a demographic questionnaire, (2) a MBI-GS questionnaire [12], and (3) an AWS questionnaire [9]. The demographic questionnaire related to sex, age, marital status, children, age of children, years of nursing work, workplace, nursing position, on-duty work schedule, and education level.

The MBI-GS consists of three scales totaling 16 items: exhaustion with five items, cynicism with five items, and professional efficacy with six items. Each item is scored using a 7-point Likert scale (never, a few times a year, once a month, a few times a month, once a week, a few times a week, and daily) ranging from 0 to 6. We obtained permission from Mind Garden to use and translate the MBI-GS into the Vietnamese language. The translation process entailed two phases: (1) forward translation, involving translation of the MBI-GS from English to Vietnamese by a bilingual researcher; and (2) back-translation, involving two independent bilingual translators, both of whom majored in English teaching and translation. Afterward, two researchers carefully compared the back-translated version with the original English version item-by-item to evaluate conceptual equivalence.

The 28-item AWS questionnaire consists of six key domains: workload (5 items), control (4), rewards (4), community (5), fairness (6), and value (4). Each scale contains both a positive word item [e.g., “I have enough time to do what's important in my job” (workload)] and a negative word item [e.g., “I do not get recognized for my contributions at work” (rewards)]. Participants indicated their degree of agreement with these statements using a 5-point Likert scale ranging from 1 (strongly disagree) to 3 (hard to decide) to 5 (strongly agree). Scoring for the negative word item is reversed. The translation process of the AWS questionnaire was identical to that of the MBI-GS questionnaire. Vietnamese version of AWS also obtained permission from Mind Garden to use and translate.

Data collection

We calculated the intended sample size using a formula for sample size estimation in a cross-sectional study, with an alpha value of .05 and an estimated p value of .50. Calculated sample size was 385 nurses, which was a safe sample size for this study. To avoid nonresponse, 500 administered questionnaires were delivered to clinical nurses at three hospitals using random sampling. In Vietnam, a general hospital, a children's hospital, and an obstetrics hospital are run by the local government for citizens, and those three hospitals are located in each province.

Based on the number of nurses at each hospital, 260 questionnaires were sent to the general hospital, 90 to the children's hospital, and 150 to the obstetrics hospital. Overall, 443 questionnaires were returned (general hospital, $n = 234$; children's hospital, $n = 80$; obstetrics hospital, $n = 129$) with a response rate of 88.6% (general hospital, 90.0%; children's hospital, 88.8%; obstetrics hospital, 86.0%). However, among 443 responses, there were 13 invalid responses with the same answer given for the entire scale or where there were missing data for some questions. Therefore, we obtained

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