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International Journal of Nursing Sciences

journal homepage: <http://www.elsevier.com/journals/international-journal-of-nursing-sciences/2352-0132>

Original Article

Abusive supervision and turnover intention: Mediating effects of psychological empowerment of nurses

Dongmei Lyu¹, Lingling Ji¹, Qiulan Zheng^{1,2}, Bo Yu, Yuying Fan^{*}

The Second Affiliated Hospital & College of Nursing, Harbin Medical University, Harbin, China

ARTICLE INFO

Article history:

Received 19 March 2018

Received in revised form

10 December 2018

Accepted 19 December 2018

Available online 24 December 2018

Keywords:

Abusive supervision

Nurse administrators

Perception

Psychological empowerment

Surveys and questionnaires

Turnover intention

ABSTRACT

Objective: This study aims to determine the mediating effects of psychological empowerment on abusive supervision and turnover intention as perceived by nurses to provide information to change the status of nurse turnover.

Methods: A cross-sectional survey (a questionnaire examining perceptions of abusive supervision, measurement of psychological empowerment, and questionnaire for turnover intention) was used to collect data. A total of 1127 clinical nurses, who were recruited through convenience sampling, participated in the survey.

Results: Nurses' average perceived abusive supervision, psychological empowerment, and turnover intention scores were 1.62 ± 0.95 , 3.24 ± 0.83 , and 14.17 ± 3.78 , respectively. Psychological empowerment was found to mediate the relationship between abusive supervision and turnover intention ($P < 0.01$). Turnover intention tends to be stronger and psychological empowerment reduced when nurse managers adopt an abusive leadership style.

Conclusions: Nurses' psychological empowerment is an intermediary variable that predicts the relationship between abusive supervision and turnover intention. Nurse managers should manage abusive supervision to increase nurses' psychological empowerment and decrease turnover intention.

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1. Introduction

With the transformation of the nursing working model and the connotations of nursing care, nurses constantly expend physical and psychological resources to meet their own expectations and those of the society, organizations, and patients. This requirement is very likely to have an adverse effect on nurses. In contrast, as an important intrinsic motivator and a psychological resource, psychological empowerment may reduce nurses' occupational burnout [1], increase work satisfaction [2] and life quality [3], and reduce their turnover intention. A cross-sectional study was conducted to verify the mediating effects of psychological empowerment on abusive supervision and turnover intention of nurses.

Results are expected to show the importance of comprehensive improvement in the psychological empowerment of nurses and decrease nurses' turnover intention.

The head nurse is the most direct supervisor controlling much of the work resources. Accordingly, effective nursing leadership increases nurses' psychological empowerment [4], which can lead to positive outcomes. However, previous literature has been restricted to the examination of positive leadership and has not addressed the effects of negative leadership practices on nurses' psychological empowerment [4,5]. The most typical form of negative leadership is abusive supervision. Abusive supervision does not refer to aggressive behavior involving physical contact [5].

Over the past two decades, extensive research has sought to identify nonviolent harmful behavior among healthcare supervisors. Constructs referring to this abuse include verbal abuse, petty tyranny, workplace bullying, and abusive supervision [6]. Theoretical and empirical overlap exists between these constructs. Additionally, abusive supervision is largely ignored in Chinese healthcare professionals. The term "abusive supervision" refers to subordinates' perceptions of the extent to which supervisors engage in a sustained display of hostile verbal and nonverbal

^{*} Corresponding author.

E-mail addresses: vanavane@126.com (D. Lyu), jill@163.com (L. Ji), 1152440860@qq.com (Q. Zheng), yubo@126.com (B. Yu), fanyuying2008@126.com, fanfanfensituan@126.com (Y. Fan).

Peer review under responsibility of Chinese Nursing Association.

¹ Dongmei LYU, Ling-ling JI, and Qiulan ZHENG contributed equally to this work.

² Current address: Second Affiliated Hospital of ChongQing Medical University.

behaviors excluding aggression involving physical contact [6]. Behavioral descriptions of abusive supervision include “silent treatment,” withholding of required information, impoliteness, aggressive eye contact, angry tantrums, explosive outbursts [7], intimidation (e.g. threats of job loss), derogation, ridicule, and public humiliation. Data indicated that 46.6% of examined nurses reported experiencing abusive supervision [8] and 36.6% believed their performance was negatively affected by it [6].

Psychological empowerment can be described as an individual's conception of his or her job role and ability to influence outcomes [9]. Research has linked structural empowerment to important organizational factors, such as job satisfaction, leadership, commitment, work productivity, and effectiveness [9,10]. The individual empowerment process consists of both critical introspection and outside guidance, leading to an appropriate modifying action [11,12]. In nursing, empowering work conditions have been associated to numerous positive organizational behaviors and attitudes consistently linked to the retention of nurses (e.g. job satisfaction, organizational commitment, autonomy) [12]. Hu et al. found nurses in China gave moderate-to-high psychological empowerment scores, although those scores were lower than those obtained by Spence [13,14]. Hence, a reasonable expectation is that when nurses are empowered to accomplish their work in meaningful ways, they are more likely to experience a fit between their expectations and their working conditions [15]. Nursing managers have focused considerable attention to the improvement of the level of psychological empowerment.

Nurses in China face a number of severe issues, such as heavy workload and high stress. However, the most severe issue faced by these nurses is nurse turnover. This issue has become increasingly important in China in recent years because the number of available of qualified faculty has declined. At present, China has over three million registered nurses (RNs) and the ratio between patients and nurses is 1:1 [16]. However, the number of Chinese RNs remains inadequate to address patient needs [15,16]. Research needs to identify factors affecting nurse turnover to inform effective interventions for retaining nurses.

Research has also shown that the antecedents of turnover intention include organizational and individual factors [17,18]. However, few studies have focused on the mediating effects of psychological empowerment on negative leadership styles and turnover intention of nurses.

Based on a review of the literature, the following hypotheses were made (Fig. 1):

Hypothesis 1. Abusive supervision, psychological empowerment, and turnover intention are related.

Hypothesis 2. Psychological empowerment mediates abusive supervision and nurse turnover intention.

2. Methods

2.1. Design, settings, and sample

This study aims to determine the mediating effects between nursing leaders' abusive supervision and turnover intention among nurses and tests a hypothetical model on that basis. Descriptive cross-sectional quantitative design was used.

Using convenience sampling, questionnaires were administered to clinical nurses working in four tertiary first-class general hospitals affiliated to Harbin Medical University from June 2014 to January 2015. Over 6000 registered nurses work in these four hospitals. The sample size was calculated according to 10 times the number of the scale items; thus, 700 participants were needed in

the present study. The final sample size was adjusted to no less than 1000 nurses, allowing for a non-response rate of 20%–30%. Inclusion criteria specified clinical registered nurses with at least one year of experience, provided informed consent and participated voluntarily. Exclusion criteria specified interns and nursing students. A convenience sampling of 1309 registered nurses was surveyed in this study by returning hardcopies of questionnaires.

2.2. Measurements

The research instruments used in this study have four components: (a) demographic information, (b) psychological empowerment scale, (c) abusive supervision scale, and (d) turnover intention scale. Authorization for the use of these scales was obtained at the beginning of the study.

The questionnaire on abusive supervision was compiled by Tepper [3] and was composed of one dimension and 15 items (e.g. “my direct supervisor tells me my thoughts and feelings are stupid,” “my direct supervisor discloses my past mistakes and failures”). Responses used a five-point Likert scale (1 = “never”; 5 = “often”) and total score ranges from 15 to 75. Higher scores indicated greater abusive supervision as perceived by nurses regarding nursing leaders. Sun et al. obtained a Cronbach's α of 0.97 when using this questionnaire to examine perceived abusive supervision in nurses [6]. In this study, this measure's α was 0.96.

The measure for psychological empowerment was compiled by Spreitzer [19] and modified by Li et al. [20] to reflect China's culture. The measure examines four dimensions: self-efficacy, meaningfulness of work, autonomy, and work impact. Three items examine each dimension. Responses used a five-point Likert scale (1 = “completely disagree”; 5 = “completely agree”). Scores for all items were added and the total score ranges from 12 to 60. Higher scores indicated greater psychological empowerment. The Cronbach's α of psychological empowerment on four versions in Chinese is from 0.72 to 0.86 and the CVI index is 0.81 [20]. In our study, the obtained values of Cronbach's α for the four dimensions were 0.85–0.88.

The scale of turnover intention was developed by Huang and was composed of one dimension with five items in Chinese. Responses used a five-point Likert scale (1 = “completely disagree”; 5 = “completely agree”). Scores ranged from 0 to 25. A higher score represented higher turnover intention. The Cronbach's α of turnover intention in Chinese is 0.74 [16]. In this study, the obtained value of Cronbach's α for the four dimensions was 0.82.

2.3. Ethical consideration

Before the survey was administered, the researcher obtained permission from the appropriate hospital administrators. Ethical approval was granted by the Ethics Committee of Nursing College of Harbin Medical University and formal permission was obtained from the Nursing Director of the Hospital.

2.4. Data collection

Targeted departments and the number of questionnaires were balanced to reflect the number of nurses in each hospital or department according to the inclusion criteria. Questionnaires were placed in sealed envelopes to protect the anonymity and quality of responses. In the formal survey, some questionnaires were administered by nurses who had been trained in advance by researchers. The training addressed the objective and significance of the survey, eligible participants, and response requirements. Questionnaires were returned one week after distribution. Remaining questionnaires were distributed on-site by the researcher in various departments during less busy periods in the

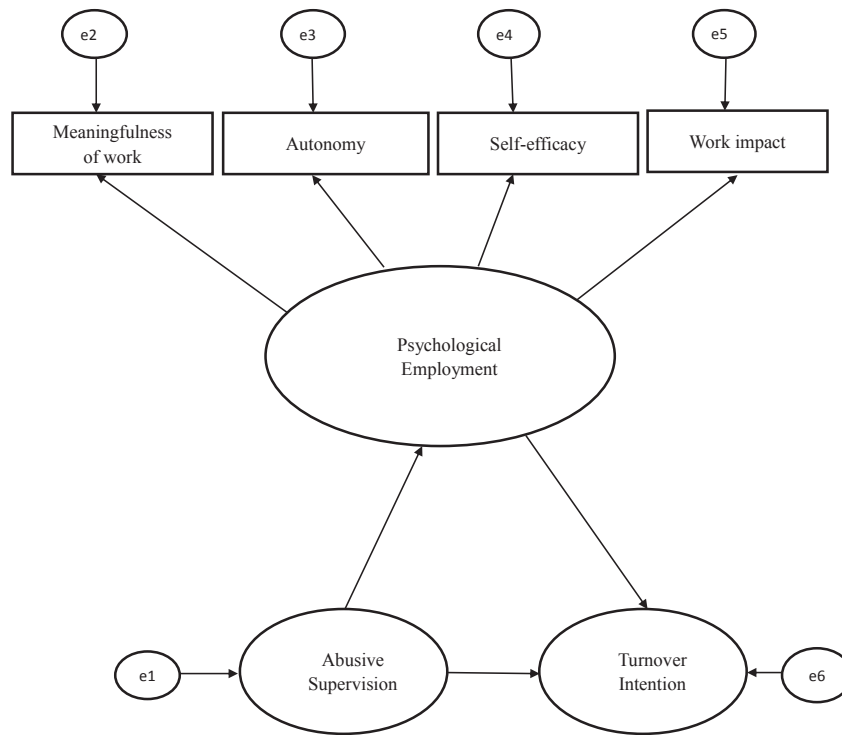


Fig. 1. Measurement and structural components of hypothesized model.

nurses' working hours and returned after their completion.

2.5. Data analysis

Data were analyzed using IBM SPSS statistical software version 19.0 for Windows (IBM Corp., Armonk, NY, USA). Means and rates were used to describe the demographic characteristics. Pearson correlation and regression analysis were conducted to determine the relationship between the variables.

3. Results

3.1. Demographic characteristics

A total of 1309 questionnaires were distributed. Only completed surveys were included in the data analysis and thus, 182 uncompleted questionnaires were eliminated. A total of 1127 valid responses were returned, representing an effective response rate of 86.1%. Descriptive demographic characteristics of the study sample are summarized in Table 1.

3.2. Levels and correlations of three variables

Descriptive statistics indicated that nurses' average perceived abusive supervision, psychological empowerment and turnover intention scores were 1.62 ± 0.95 , 3.24 ± 0.83 , and 14.17 ± 3.78 , respectively. Based on average score, the order of dimensions of psychological empowerment is self-efficacy, meaning of work, autonomy, and work impact, as shown in Table 2.

Pearson's correlation indicated that perceived abusive supervision and psychological empowerment were significantly negatively correlated ($r = -0.31$, $P < 0.001$). Psychological empowerment and turnover intention were significantly negatively correlated ($r = -0.58$, $P < 0.001$). Abusive supervision and turnover intention were significantly correlated ($r = 0.64$, $P < 0.001$). Perceived abusive

Table 1

Participants demographics ($n = 1127$).

Characteristics	Classifications	<i>n</i> (%)
Age	20–25	349 (31.0)
	26–30	485 (43.0)
	31–35	191 (16.9)
	≥ 36	102 (9.1)
Working years	1–2	336 (29.8)
	3–5	393 (34.9)
	6–8	187 (16.6)
	≥ 9	211 (18.7)
Gender	Male	61 (5.4)
	Female	1066 (94.6)
Marriage	Married	466 (41.3)
	Single	652 (57.9)
	Divorced	9 (0.8)
Department	Medical department	421 (37.4)
	Surgical department	326 (28.9)
	Operating Room	30 (2.7)
	ICU (Intensive Care Unit)	56 (5.0)
	Other department	294 (26.0)
Education level	Secondary nursing education	11 (1.0)
	Junior college education	389 (34.5)
	Undergraduate education	679 (60.0)
	Graduate education	48 (4.5)
Professional title	Senior nurse	568 (50.4)
	Junior nurse	427 (37.9)
	Primary nurse	132 (11.7)

supervision and each dimension of psychological empowerment also exhibited significant negative correlations ($P < 0.001$), as shown in Table 2.

3.3. Testing the mediation role of psychological empowerment

Multiple linear stepwise regression analysis was used to study the relationship among three variables. Turnover intention was analyzed as a dependent variable, while abusive supervision and

Table 2Levels and correlations (*r*) of abusive supervision, psychological empowerment and turnover intention (*n* = 1127).

Variable	<i>M</i> ± <i>SD</i>	Cronbach's α	Abusive supervision (<i>r</i> value)	Psychological empowerment (<i>r</i> value)
Abusive supervision	1.62 ± 0.95	0.96	—	—
Psychological empowerment	3.24 ± 0.83	0.89	−0.31**	—
Turnover intention	14.17 ± 3.78	0.82	0.64**	−0.58**

Note: ***P* < 0.01.

psychological empowerment were analyzed as independent variables. The results showed the predictive variables of turnover intention were abusive supervision and psychological empowerment (*P* < 0.01), which could explain 38.1% of total variation (Table 3).

The testing process of mediation included the following steps [21]. The first step is to test the regression coefficient *C*. If it is significant, the second step could be continued; otherwise, the analysis should be stopped. In step two, partial mediation test was done, that is, the regression coefficients of *A* and *B* were tested in turn. If *A* and *B* are both significant, which means that the impact of abuse management (*X*) on turnover intention (*Y*) is at least partially achieved through the mediation variable psychological empowerment (*M*). Then, the process needs to continue to step three. If one of the coefficients of *A* and *B* is not significant, the analysis needs to move to step four. A complete mediation test should be conducted in step four to test the coefficient of *C*. If *C* is not significant, the effect of *X* on *Y* is achieved most through *M*. If *C* is significant, only part of the mediation has occurred. Sobel Test needs to be done in step four. A significant outcome indicates that the mediation effect of *M* is significant; otherwise, the mediation effect is insignificant.

The mediating effect of psychological empowerment (*M*) between abusive supervision and turnover intention is shown in Table 4. The results were standardized solutions, with lower-case letters representing standardized variables. The fourth *t*-test was also significant and psychological empowerment (*M*) played partial mediating effects. The proportion of mediating effect to total effect was $0.44 \times 0.39/0.45 = 0.38$ (*P* < 0.001).

To test the hypotheses, a model was built taking psychological empowerment as an exogenous latent variable and the mediated variable between abusive supervision and turnover intention. The direct, indirect, and total effects of the constructed model and analysis are shown in Table 3 and Fig. 2.

4. Discussion

Our study found that the nurses' average psychological empowerment score is 3.24 ± 0.83 , which falls into a moderate-to-

Table 3Multiple linear stepwise regression analysis of nurses' abusive supervision perceptions, psychological empowerment and turnover intention (*n* = 1127).

	Variables	<i>B</i>	<i>SE</i>	<i>P</i>
Step 1	Constant	1.454	0.118	
	Abusive Supervision	0.638	0.132	<0.001
	<i>R</i> ²	0.264		
	Adjusted <i>R</i> ²	0.261		
Step 2	Constant	1.271	0.129	
	Abusive Supervision	0.476	0.115	<0.001
	Psychological Empowerment	−0.341	0.096	<0.001
	Self-efficacy	−0.163	0.031	0.001
	Meaningfulness of work	−0.086	0.026	0.023
	Autonomy	−0.196	0.017	0.001
	Work impact	−0.182	0.053	0.001
	<i>R</i> ²	0.445		
	Adjusted <i>R</i> ²	0.381		

Note: Turnover intention was analyzed as dependent variable.

Table 4Mediating effect of psychological empowerment between abusive supervision and turnover intention (*n* = 1127).

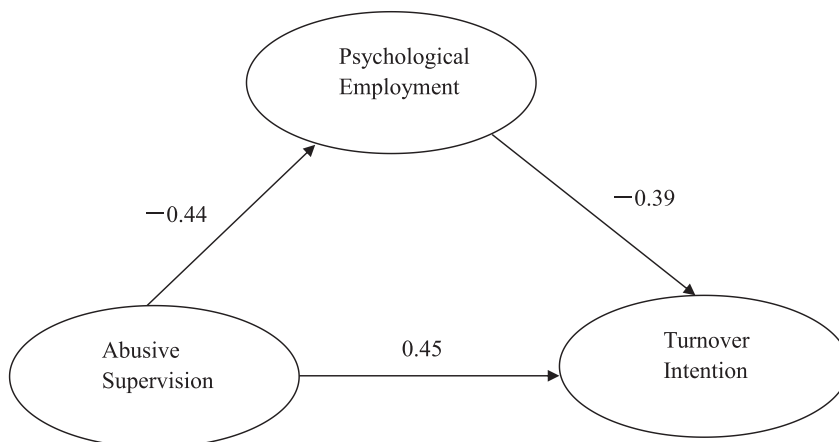
	Standardization regression equation	<i>SE</i>	<i>t</i>	<i>P</i>
Step 1	<i>Y</i> = 0.45 <i>X</i>	0.05	13.00	<0.001
Step 2	<i>M</i> = −0.44 <i>X</i>	0.05	11.32	<0.001
Step 3	<i>Y</i> = −0.39 <i>M</i>	0.04	10.33	<0.001
	= 0.29 <i>X</i>	0.05	7.53	<0.001
Calculation	$0.44 \times 0.39/0.45 = 0.38$			

high level [22]. This result, although encouraging, indicates that nurses' psychological empowerment in China needs to be increased. Li found that nurses from other countries focus more on their personal value than nurses in China [20]. This finding suggests that nursing leaders should focus on cultivating nurses' values and improving their department's culture. The high risk, workload, and pressure presented by nursing may leave nurses with insufficient time and energy to participate actively in organizational management and decision-making, which diminishes their perception of their impact [22].

The average score for perceived abusive supervision is 1.62 ± 0.95 , which is less than the questionnaire's median. This result suggests abusive supervision might not be prevalent. This result may be due to most nursing leaders in China being female. Chinese women tend to value mental acuity and considerateness and characteristically monitor their own behavior during supervision. Nursing leaders in China are also ground-level supervisors whose power and authority are not absolute or highly centralized. Thus, they may restrain themselves from abusive supervision [23]. Although average abusive supervision scores ranged in the moderate-to-low level, scores at this level still merit consideration because abusive supervision has an increasingly negative trend [4]. In addition, nurses who experience abusive supervision tend to consume additional psychological resources, which may easily lead to emotional exhaustion [23].

Turnover intention score (14.17 ± 3.78) is high, which reflects the severity and importance of nurse turnover intention in China. Our findings suggest nurses tend to hold turnover intention and eventually quit their jobs, which could potentially exacerbate the nursing shortage. This result could serve as an early warning to healthcare organizations as well as a suggestion as to what that they should focus on in managing this situation. We believe the possible motivations for turnover management relating to nursing leaders should be examined in terms of the various aspects of medical organizations, such as organizational injustice, responsibilities, personal characteristics, and nurses' attribution of turnover intention.

The most important finding in our study is that psychological empowerment mediates abusive supervision and turnover intention (Table 3, Fig. 2). If nursing leaders have an abusive supervision leadership style and abused nurses have limited psychological empowerment, the latter are likely to develop turnover intentions. These findings are similar to findings in previous literature [24]. The promotion of effective and acceptable nursing leadership and reduction of abusive supervision is vital in preventing the



Note: Mediated coefficient of psychological employment was 0.38.

Fig. 2. Final model with coefficients.

formation of turnover intention, particularly among nurses with limited psychological empowerment. Issues such as leadership style, psychological environment, and experiences in the organizational climate deserve more attention and intervention.

Our mediation model of nurses' psychological empowerment is supported by our data. Nurses need to attain psychological empowerment to reduce their turnover intention. This result may assist in the development of strategies to manage or change nursing leadership styles. Turnover intention tends to be stronger and psychological empowerment reduced when nurse managers adopt an abusive leadership style. Further evidence on the multidimensional nature of nurses' turnover intention is also provided. Alternatively, turnover intention may be reduced if nurses experience positive psychological empowerment and confidence in their work role [25].

5. Implications

Psychological empowerment is an important psychological resource that motivates nurses to grow and develop continuously. As the most direct supervisor of nurses, the leadership styles of nursing leaders have a critical effect on the internal motivation of nurses. Therefore, hospital administrators should focus on developing leadership capabilities. The author believes that in addition to promoting positive leadership, the prevention and management of negative leadership behavior should also be emphasized. One example is by adopting zero-tolerance policies regarding negative leadership behavior. The hospital in this study was inspired to manage negative leader behaviors by cultivating interpersonal abilities in nursing leaders. Hence, nursing leaders need to work proactively toward creating growth and development opportunities for nurses to enable nurses to achieve their potential.

6. Limitations

The first limitation of the study is the use of convenience sampling and self-reporting method, which might result in common method variance causing bias on the final results. A longitudinal multi-source study should be conducted to test the causal effects of the variables. Second, most of the participants worked within one city and the data were only obtained from Harbin. Thus, the results may not be generalized to the entire country. Future research

should aim to involve a larger sampling range and replicate this study's results in more diverse samples, particularly in regional areas to check the proposed model. Future research should also explore a more specific instrument for measuring abusive supervision in a nursing environment.

7. Conclusion

A cross-sectional survey was conducted to identify the mediating effects of nurses' psychological empowerment on abusive supervision and turnover intention as perceived by nurses. The results demonstrate the relationship between the three effects. Supervisors should aim to optimize leadership behavior comprehensively and address both positive and negative elements of leadership to promote nurses' psychological empowerment and their internal motivation.

Author contributions

FAN Yuying designed and conceived the whole study. LYU Dongmei, JI Lingling and ZHENG Qiulan performed the survey and analyzed the data. Dongmei LYU, Ling-ling JI, and Qiulan ZHENG contributed equally to this work. FAN Yuying and YU bo wrote and revised the article. All authors have read and approved the final manuscript.

Conflicts of interest

The authors have no conflicts of interest to declare.

Funding

This work was supported by the Natural Science Foundation of China (No. 71704040).

Acknowledgments

This study could not have been completed without the cooperation of the registered nurses of the four affiliated hospitals of the Harbin Medical University.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ijnss.2018.12.005>.

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