

THE EFFECTS OF EMPOWERING IN-SERVICE TRAINING  
PROGRAM TO IMPROVE PROFESSIONAL  
COMMITMENT AND JOB SATISFACTION AMONG  
NURSES IN TAIWAN

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**ABSTRACT**

**Background:** Higher levels of professional commitment showed better job performance, job satisfaction and productivity, and lower levels of absenteeism and tardiness.

**Purpose:** The purpose of this study was to explore the effectiveness of empowering in-service training program to improve professional commitment and job satisfaction among nurses.

**Methods:** A quasi-experimental study design with non-equivalent control group design was conducted. Purposeful sampling was employed from Tao-yuan area. A total of 82 nurses subjects were recruited, and divided to experimental and control groups. The empowering

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in-service training program involved the curriculum content to include the cognition of workplace difficulties, social interaction communicates and the pressure manages and refuses technique etc. Both experimental and control groups took pre-test in order to set baseline, and only the experimental group obtained 6-weeks classes regarding to empower in-service training program. The experimental group took post-test immediately after intervention in order to evaluate the instant effect of teaching programs. Data was analyzed by using descriptive statistics, and time effects were tested using generalized estimating equations (GEEs). A  $p$  value of less than .05 was considered statistically significant.

**Results:** After controlling the confounding variables, the findings of this study showed that empowering in-service training program increased both of the professional commitment and job satisfaction significantly in the experimental group as control group ( $p < .001$ ). However, overall professional commitment and job satisfaction trends showed no significant differences between experimental and control groups .

**Conclusion and implications for practice:** Our findings provided information as supplementary for nurses in-service in long- term care facilities, and help healthcare institutions understand the importance of nurses' job satisfaction and professional commitment and improve these aspects of the organizational environment.

**Key words:** professional commitment, job satisfaction, empowerment, generalized estimating equations

## Introduction

Workplace stress is a common problem with broad effect in professional life. Recently, a critical shortage of registered nurses exists and this shortage is expected to worsen (Lu et al., 2012; Xiang et al., 2014 ). However, Lee et al.(2013) indicated that nurses' job satisfaction is an important issue because of its impact on patient satisfaction and the quality of medical service.

Professional commitment moderates the effects of burnout also provides nursing managers with insights to reduce the influence of burnout (Teng et al., 2007). Furthermore, Mowday et al. (1979) found that employees who had higher levels of professional commitment showed better job performance, job satisfaction and productivity, and lower levels of absenteeism and tardiness. According to Laschinger et al. (2004), empowered employees are generally more satisfied with their job, and enhance perceptions of empowerment can have enduring positive effects on employees.

Gardner (1992) defined professional commitment in nursing as the intent to build a career that is a meaningful, life-long pursuit and observed that this process is dynamic and has different patterns and styles. According Kuokkanen et al. (2003) commitment and satisfaction are crucial elements of nurse empowerment. Job satisfaction is composed of intrinsic and extrinsic factors. Intrinsic factors are motivating factors centered on personal achievement, recognition, responsibility, advancement, growth, and the work itself. Extrinsic factors are related to the external working environment such as supervision, working conditions, co-workers, pay, policies and procedures, job security, status, and personal life (Herzberg et al., 1959). Lee et al. (2013) found that to reduce nurses' intention to leave their organization, nursing administrators may offer more focused interventions to improve the supportive milieu with job security and professional recognition, work arrangement and workload, work or home life balance, and nursing staffing and patient care. Based on a systematic review of 100 studies measuring the

sources and effects of hospital nurses' job satisfaction, Lu et al.(2012) addressed that hospital nurses' job satisfaction is closely related to working conditions and the organizational environment, job stress, role conflict and ambiguity, role perception and role content, organizational and professional commitment.

There is evidence to suggest that empowerment improves job satisfaction (Laschinger et al., 2004). Empowerment in the workplace is a popular idea that has permeated both the popular and scientific literature (Laschinger et al., 2004). Strategies to empower this workforce may reduce cynicism and draw on their high levels of job efficacy (Norton et al., 2012). There is a contradictory issue related to professional commitment and job satisfaction. The purpose of the current study was to evaluate the effects of improving professional commitment and job satisfaction intervention in nurses. It was expected that nurses receiving interventions would experience enhanced professional commitment and job satisfaction.

### **Ethical considerations**

This study was approved by the appropriate research ethics committees of Chang Gung Memorial Hospital (Institutional Review Board approval: IRB102-3477D). The objectives of the study and the questionnaire were explained to all participants and respondents were assured of the anonymity and confidentiality of their responses. Participation in the study was voluntary. All participants provided signed informed consent to participate.

### **Instruments**

#### ***Demographic Data Questionnaire***

The demographic characteristics questionnaire collected information on age, marital status, and service length.

#### ***Professional commitment questionnaire***

Perceived professional commitment was evaluated by measuring an individual's subjective

thinking using a scale developed by the researchers after a systematic review of the literature (Lin et al., 2007; Lu et al., 2002; Lu et al., 2005; Lu et al., 2012). It included 26 items scored according to a 4-point Likert scale, ranging from 1 point (strongly do not support) to 4 points (strongly support). The 26 items addressed the three main categories of measured professional commitment, including willingness to make an effort, appraisal in continuing one's career, and belief in goals and values domains. A higher score indicated greater professional commitment. The Cronbach's  $\alpha$  value for this study was .85.

### ***Job satisfaction questionnaire***

We adopted a previously validated Job Satisfaction Scale developed by Yeh et al. (2004) This self-assessment scale includes 20 items addressing two subscales to measure an individual's job satisfaction, including inner satisfaction and external satisfaction. Scoring of the job satisfaction scale used a 5-point Likert scale ranging from 1 point (very dissatisfied) to 5 points (very satisfied). Cronbach's  $\alpha$  was .84 for the current study.

### ***The Intervention of Empowerment Education***

The intervention of empowerment education for nurse aides was developed by referencing related literature (Castle et al., 2006; Lu et al., 2012; Park et al. 2010 ). Teaching materials, teaching plans and a brochure for the empowerment programs were utilized in our intervention program. The empowering in-service training program involved the curriculum content to include the cognition of workplace difficulties, social interaction communicates and the pressure manages and refuses technique etc. Other concepts implemented included: increasing self-efficacy, emotional adaptation, and positive thinking according to the subjects' characteristics. The program ran once a week for six weeks, with each session lasting two hours. The empowerment program, comprised three individual sessions. Each 2-hour session

was taught by researcher. In the first lesson, the investigator introduced information concerning nurse aides with work stress and explained the empowerment education intervention program. The second introduced methods of enhancing behavior-based abilities. The third covered appropriate techniques for self-management, including emotional adaptation, the behavior contract and self-control. At the end of the class, participants were encouraged to discuss the information and concerns with the group. Subjects would immediately receive positive reinforcement once the teaching goals were reached.

### **Data Analysis**

The statistics application SPSS/Windows 17.0 (SPSS, Inc., Chicago, IL) was used for data archiving and statistical analysis. To describe the distribution of demographic data, professional comment and job satisfaction, we used descriptive statistics expressed in terms of frequency, percentage, mean, and standard deviation. In order to determine the effects of empowering in-service training program, time effects were tested using generalized estimating equations (GEEs), and a  $p$  value of less than .05 was considered statistically significant.

## Results

### Characteristics of the Subjects

A total of 82 subjects fully participated in this study. The experimental group was comprised of 42 members with an average age of 30.33 (SD = ± 3.73); the control group consisted of 40 members with an average age of 31.38 (SD = ± 5.11). The mean service length was 8.64 years (SD = ± 3.75) for the experimental group, and 9.08 years (SD = ± 3.54) for the control group. The intervention and control groups did not differ on any of the demographic characteristics, and the two groups for equivalence on each of the outcome measures prior to the intervention (Table 1).

**Table1.** Demographic characteristics between the experimental and control groups

Variables	Experiment group (n = 42)			Control group (n = 40)			$\chi^2$	p
	n(%)	M	SD	N(%)	M	SD		
Marital Status							.05	.81
married	15(35.7)			7(42.5)				
unmarried	27(64.3)			23(57.5)				
Age		30.33	3.73		31.38	5.11	-1.05	.29
service length		8.64	3.75		9.08	3.54	-.53	.59
professional commitment		2.72	.28		2.66	.39	.79	.42
willingness to make an effort		2.61	.32		2.63	.42	-.32	.75
appraisal in continuing one's career		2.67	.35		2.51	.49	1.63	.10
belief in goals and values		2.89	.37		2.83	.42	.62	.53
job satisfaction		3.83	.25		3.84	.24	-.23	.81
Internal satisfaction		3.82	.31		3.74	.27	1.19	.23

external satisfaction 3.83 .28 3.94 .26 -1.71 .08

### The Effect on Improving Professional Commitment through Empowerment Education

The average scores of the pretest, the immediate post-test and the delayed post-test for professional commitment are presented in table 2. The results showed that the immediate post-test score was obviously increased in both groups; although, the experimental group's score was higher than that of the control group. We used generalized estimating equations to evaluate the group and time effects in professional commitment. Table 3 shows significant statistical differences in group effect. Compare with control group, experimental group increased significantly to 1.20. Whereas, the professional commitment did not differ significantly between the baseline, post- test, and post-post test . There was also no interaction between time and group in professional commitment. In other words, professional commitment did not change significantly over time.

**Table 2.** Comparison of the variable score distribution between the experimental and control Groups

Group	professional commitment		job satisfaction	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Experimental group ( n=42 )				
Pre-test	2.72	.28	3.83	.25
Immediately post-test	2.78	.26	3.87	.23
Delay post-test	2.69	.40	3.87	.13
Control group ( n=40 )				
Pre-test	2.66	.39	3.84	.24
Immediately Post-test	2.67	.34	3.85	.27
Delay post-test	2.58	.39	3.86	.25

**Table 3** GEE Analysis for Repeated Measurements of professional commitment score<sup>a</sup> (N = 82)

Parameter	B	SE	Wald $\chi^2$	95% C I	p
intercept	2.69	.03	13040.97	2.62 to 2.77	0.001
Group <sup>b</sup>					
G <sub>1</sub> vs. G <sub>2</sub>	1.20	.069	300.61	-1.34 to -1.07	0.001
Time <sup>b</sup>					
T <sub>1</sub> vs. T <sub>0</sub>	.03	.05	.41	-.06 to .13	.51
T <sub>2</sub> vs. T <sub>0</sub>	-.05	.05	.97	-.17 to .05	.32
Group <sup>b</sup> x Time <sup>b</sup>					
G <sub>1</sub> * T <sub>1</sub>	.07	.10	.46	-.13 to .27	.49
G <sub>1</sub> * T <sub>2</sub>	.10	.10	.11	-.09 to .30	.31

Note. GEE = generalized estimating equation; CI = confidence interval.

<sup>a</sup> Model was assessed using the GEE and adjusted for the following factors: gender.

<sup>b</sup> Control group or baseline is the reference.

G<sub>1</sub>: Experimental group; G<sub>2</sub>: Control group; T<sub>0</sub>: Baseline; T<sub>1</sub>: post- test; T<sub>2</sub>: post-post test.

### The Effect on Improving job satisfaction through Empowerment Education

The average scores of the pretest, the immediate post-test and the delayed post-test for job satisfaction are presented in table 2. The results showed that the immediate post-test score was obviously increased in both groups; although, the experimental group's score was higher than that of the control group. We also used generalized estimating equations to evaluate the differences after we controlled for several variables that can affect the job satisfaction. Table 4 shows significant statistical differences in group effect. Compare with control group, experimental group increased significantly to 2.26. However, the job satisfaction did not differ significantly between the baseline, post- test, and post-post test. There was also no interaction between time and group in job satisfaction. In other words, job satisfaction did not change significantly over time.

**Table 4** GEE Analysis for Repeated Measurements of job satisfaction score<sup>a</sup> (N = 82)

Parameter	B	SE	Wald $\chi^2$	95% C I	p
intercept	3.86	.03	22125.16		.001
Group <sup>b</sup>					
G <sub>1</sub> vs. G <sub>2</sub>	2.26	.06	1484.71	2.23 to 2.46	.001
Time <sup>b</sup>					
T <sub>1</sub> vs. T <sub>0</sub>	-.36E-16	.07	.001	-.15 to .15	.83
T <sub>2</sub> vs. T <sub>0</sub>	.01	.07	.02	-.14 to .16	.71
Group <sup>b</sup> x Time <sup>b</sup>					
G <sub>1</sub> * T <sub>1</sub>	.02	.09	.04	-.15 to .04	.83
G <sub>1</sub> * T <sub>2</sub>	.01	.08	.02	-.19 to .02	.88

Note. GEE = generalized estimating equation; CI = confidence interval.

<sup>a</sup> Model was assessed using the GEE and adjusted for the following factors: gender.

<sup>b</sup> Control group or baseline is the reference.

G<sub>1</sub>: Experimental group; G<sub>2</sub>: Control group; T<sub>0</sub>: Baseline; T<sub>1</sub>: post- test; T<sub>2</sub>: post-post test.

## Discussion

This current study examined the effects of intervention on nurses by employing a set of empowerment education on strategies improve their professional commitment and job satisfaction. The major finding in this study was that increases in professional commitment and job satisfaction scores were significantly greater in the experimental group than that in the control group. The finding consistent with the results of the studies by Norton et al. (2012), the results of this study empower this workforce may reduce cynicism and draw on their high levels of job efficacy. This finding similar to the results of the studies by Brewer et al. (2003), Kuokkanen et al. (2003), and Lopopolo (2002), the results of this research demonstrate that professional commitment does have an influence on intrinsic and extrinsic job satisfaction factors among nurses.

These findings indicated that the intervention did not time effects. Surprisingly, these findings were different than reported in previous studies which showed that the job satisfaction

could be effectively influenced by empowerment education intervention (Laschinger et al., 2004; Lu et al., 2012). Some of the reasons that might be responsible for this ineffectiveness include the use of a purposive sampling instead of a random sampling method. Furthermore, subjects were recruited from the same hospital and a selection bias might have existed due to the different abilities of the subjects in each group. Another reason that may be responsible for the ineffectiveness of the intervention program on the time effects was that some subjects have the skills of emotional adaptation, and positive thinking according to the subjects' characteristics. That may have been why there were no significant time effects. In conclusion, the results of this study demonstrated that not only design bias and demographic variables had to be controlled, but also the subject selection bias should be considered.

### Conclusion

In summary, The empowering in-service training program increased both of the professional commitment and job satisfaction significantly in the experimental group as control group. Our results may help healthcare institutions understand the importance of nurses' job satisfaction and professional commitment and improve these aspects of the organizational environment. Based on the results of this study, a larger sample size is recommended to strengthen the significance of the findings. Also, subjects equally recruited from different health facilities area populations are required.

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