

Study on the Positive Psychological Capital, Organizational Commitment and Job Stress

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Abstract

This is a descriptive research study designed to provide preliminary data on nursing management in small and medium-sized hospitals. The study's subjects were 197 general nurses with more than 1 year of experience employed in small and medium-sized hospitals located in G metropolitan city. Organizational commitment was affected by shift type and optimism (sub-factor of positive psychological capital), with an explanation power of 22%. With regard to the effects on job stress, work overload, a sub-factor of job stress, was affected by marital status, with an explanation power of 10%. Insufficient professional knowledge and skills were affected by marital status and resilience (a sub-factor of positive psychological capital) with an explanation power of 16%. Interpersonal relationship problems were affected by resilience (a sub-factor of positive psychological capital), with an explanation power was 8%. Night shift was affected by shift type, and its explanation power was 8 %.

Keywords: Positive psychological capital, Organizational commitment, Job stress, Nurse

Introduction

The intense competition between large medical institutions has prompted several changes in the business environments of small and medium-sized hospitals [1]. Indeed, the increase in the number of large hospitals in metropolitan areas has facilitated the mass migration of the nursing workforce from small and medium-sized hospitals in other non-metropolitan regions [2], depleting the number of nurses in these relatively rural and smaller hospitals [3].

The nurse turnover rate in small and medium-sized hospitals reached 37.3% in hospitals with 100-199 beds, and 22.0% in those with 200-399 beds. This represents threefold the rates in large hospitals with more than 1,000 beds (7.2%) [4]. The high turnover results in a smaller number of nurses, which in turn generates a work overload and a substandard working environment for the remaining nurses. Ultimately, this imperils the quality of the nursing services and fuels a damaging vicious cycle [3].

It is therefore imperative for small and medium-sized hospitals to acknowledge the significance of medical service and to strive to boost their nurses' organizational commitment in order to maximize their organizations' competitiveness and productivity. Nurses' organizational commitment has been found to be an essential precondition not only for the

reduction of negative consequences such as conflicts, exhaustion and turnover, but also for the maintenance of patients' health through a deeper commitment to patients [5]. Members who are highly committed to their organization tend to earn external as well as internal remuneration (e.g., job satisfaction), to maintain amicable relationships with coworkers, and to perform tasks for the benefit of the organization [6].

Meanwhile, nurses working in small and medium-sized hospitals experience a high level of job stress as a result of several factors, including a relatively inferior working environment, insufficient manpower, overtime work, and low wages [7]. Job stress generates negative consequences, such as the induction of workers' disruptive, nonproductive, and risk behaviors. Moreover, from an organizational perspective, job stress results in job dissatisfaction, low organizational commitment, and frequent absences and turnovers, which in turn has detrimental repercussions that undermine the organization, such as reduced managerial efficiency, significantly curtailed work hours, multiplied turnover costs, and increased loss as a result of employee sabotage [8].

Recently, positive psychological capital has been gaining traction as a performance-enhancing factor. Positive psychological capital focuses on the strengths and potential of an individual member in order to foster happiness and satisfaction in the individual and to contribute to the performance of the organization [9]. Luthans, Avey and Patera [10] reported that positive psychological capital affected members' job satisfaction and organizational commitment positively. Similarly, Choi and Lee [11] suggested that positive psychological capital had significant direct and indirect effects in helping identify the underlying mechanisms linking human resources management to organizational performance. In essence, positive psychological capital promotes nurses' innovativeness while performing nursing tasks, which curtails negativity and boosts positivity, and has corresponding beneficial impacts on the nurses' physical and psychological health [5].

Hence, the present study seeks to provide useful basic data to inform the management of nursing human resources in small and medium-sized hospitals by confirming the relationship between positive psychological capital, organizational commitment, and job stress in nurses working in small and medium-sized hospitals.

Method

Research Design

This is a descriptive research study designed to provide preliminary data on nursing management in small and medium-sized hospitals.

Subjects

The study's subjects were 197 general nurses with more than 1 year of experience employed in small and medium-sized hospitals located in G metropolitan city.

Research tools

The study tools used were the positive psychological capital measurement tool developed by Luthans, Avolio, Avey and Norman [12], organizational commitment measurement tool developed by Mowday, Steers and Porter [13], and job stress measurement tool developed by Koo and Kim [14].

Research Findings

General Characteristics of participants

With regard to the general characteristics of the subjects, 76 subjects were between the ages of 25~30 (38.6%), 194 subjects (98.5%) were female, and 130 subjects were single (66.0%). In addition, 135 subjects (68.5%) did not declare a religion, 137 subjects had associate degrees (69.5%), and 83 subjects (42.1%) had more than 7 years of clinical experience. In terms of work experience at the currently employed hospital, 85 subjects (43.1%) had less than 3 years of experience. With regard to the work unit, 119 subjects (60.4%) worked in general wards, and 114 nurses (71.6%) worked rotating shifts [Table 1].

Positive psychological capital, organizational commitment and job stress level

The mean score of the degree of positive psychological capital was 3.70 ± 0.55 points out of a total of 6 points. In terms of the sub-variables of positive psychological capital, the mean scores of hope, resilience, optimism, and self-efficacy were 3.81 ± 0.58 , 3.79 ± 0.71 , 3.66 ± 0.64 , and 3.56 ± 0.55 , respectively. The mean score of the degree of organizational commitment was 3.16 ± 0.51 points out of a total of 5 points. The mean score of the degree of job stress was 3.39 ± 0.48 out of a total of 5 points, while that of the sub-variables of job stress were night shift (3.56 ± 1.09), work overload (3.55 ± 0.57), insufficient professional knowledge and skills (3.46 ± 0.69), interpersonal problems (3.28 ± 0.68), professional role conflict (3.26 ± 0.61), and appropriate compensation (3.24 ± 0.69), in decreasing order [Table 2].

[Table 1] General characteristics of participants (N=197)

Variable	Category	Frequency	Percentage(%)
Age(yr)	Less than 25	30	15.2
	25-29	76	38.6
	30-34	67	34.0
	More than 35	24	12.2
Gender	Female	194	98.5
	Male	3	1.5

Marital status	Married	67	34.0
	Single	130	66.0
Religion	Yes	62	31.5
	No	135	68.5
Education	College	137	69.5
	Bachelor	57	29.0
	Graduate school or more	3	1.5
Clinical carrier	Less than 3 yrs	45	22.9
	Less than 3-5 yrs	40	20.3
	Less than 5-7 yrs	29	14.7
	More than 7 yrs	83	42.1
Presence hospital carrier	Less than 3 yrs	85	43.1
	Less than 3-5 yrs	49	24.9
	Less than 5-7 yrs	28	14.2
	More than 7 yrs	35	17.8
Working department	Ward	119	60.4
	Intensive care unit	22	11.2
	Emergency room	23	11.7
	Out patient department	14	7.1
	Operating room	19	9.6
Working pattern	Shift	141	71.6
	Day duty fixed	56	28.4

[Table 2] Positive psychological capital, organizational commitment and job stress level (N=197)

Category	Subcategory	Mean	SD
Positive psychological capital	Self efficacy	3.56	0.55
	Hope	3.81	0.58
	Resilience	3.79	0.71
	Optimism	3.66	0.64
Total		3.70	0.55
Organizational commitment		3.16	0.51
Job stress	Work load	3.55	0.57
	Professional role conflict	3.26	0.61
	Professional knowledge and skill shortages	3.46	0.69
	Interpersonal problems	3.28	0.68
	Appropriate reward	3.24	0.69
	Night shift	3.56	1.09
Total		3.39	0.48

Difference of Positive psychological capital, organizational commitment and job stress

There were significant differences in the degree of positive psychological capital in accordance with two general characteristics: work unit ($F=3.22$, $p=.014$) and shift type ($t=-3.34$, $p=.001$). There were significant differences in the degree of organizational commitment in accordance with four general characteristics: age ($F=2.85$, $p=.039$), clinical carrier ($F=2.71$, $p=.047$), work unit ($F=3.92$, $p=.004$), and shift type ($t=-3.88$, $p<.001$). Furthermore, there were significant differences in the degree of job stress in accordance with two general characteristics: marital status ($t=-1.99$, $p=.048$) and amount of experience at the currently employed hospital ($F=3.51$, $p=.016$) [Table 3].

[Table 3] Difference of Positive psychological capital, organizational commitment and job stress(N=197)

Variables	Category	Positive psychological capital		Organizational commitment		Job stress	
		M (SD)	t/F (p)	M (SD)	t/F (p)	M (SD)	t/F (p)
Age (yr)	> 25 ^a	3.55 (348)	2.62 (.050)	3.26 (.45)	2.85* (.039)	3.43 (.38)	1.73 (.161)
	25~29 ^b	3.67 (.53)		3.05 (.53)	b<d	3.46 (.52)	
	30~34 ^c	3.70 (.57)		3.16 (.47)		3.35 (.43)	
	≤35 ^d	3.97 (.58)		3.35 (.57)		3.22 (.61)	
Gender	Female	3.70 (.55)	-.55 (.587)	3.16 (.51)	.34 (.733)	3.39 (.49)	-.78 (.437)
	Male	3.88 (.30)		3.06 (.54)		3.61 (.23)	
Marital status	Married	3.78 (.57)	1.40 (.163)	3.25 (.51)	1.80 (.074)	3.30 (.47)	-1.99* (.048)
	Single	3.66 (.54)		3.11 (.51)		3.44 (.49)	
Religion	Yes	3.70 (.56)	-.01 (.993)	3.22 (.52)	1.11 (.270)	3.41 (.43)	.310 (.757)
	No	3.70 (.55)		3.13 (.51)		3.38 (.51)	
Education	College	3.69 (.53)	.104 (.901)	3.15 (.46)	.020 (.980)	3.38 (.50)	.332 (.718)
	Bachelor	3.73 (.60)		3.17 (.62)		3.42 (.46)	
	Graduate school or more	3.68 (.73)		3.17 (.50)		3.23 (.42)	
Clinical carrier	less than 3yrs	3.66 (.49)	1.61 (.188)	3.29 (.53)	2.71* (.047)	3.40 (.44)	1.17 (.323)
	less than 3-5yrs	3.58 (.51)		2.99 (.53)	a>b	3.39 (.49)	
	less than 5-7yrs	3.68 (.53)		3.09 (.77)		3.53 (.50)	
	More than 7yrs	3.80 (.60)		3.19 (.48)		3.34 (.49)	
Presence hospital carrier	less than 3yrs	3.75 (.49)	1.14 (.336)	3.26 (.50)	2.54 (.058)	3.35 (.48)	3.51* (.016)
	less than 3-5yrs	3.60 (.59)		3.02 (.54)		3.42 (.43)	c>d
	less than 5-7yrs	3.65 (.59)		3.08 (.47)		3.63 (.47)	
	More than 7yrs	3.78 (.61)		3.16 (.50)		3.25 (.51)	
Working dept.	Ward	3.62 (.52)	3.22* (.014)	3.11 (.52)	3.92** (.004)	3.38 (.49)	.29 (.883)
	Intensive care unit	3.69 (.59)	a<d	3.18 (.52)	a<e	3.46 (.51)	
	Emergency room	3.77 (.45)		2.96 (.41)		3.42 (.48)	
	Out patient Department	4.07 (.39)		3.38 (.53)		3.42 (.57)	
	Operating room	3.91 (.73)		3.48 (.33)		3.31 (.35)	
Working pattern	Shift	3.62 (.51)	-3.34** (.001)	3.07 (.50)	-3.88*** (.000)	3.41 (.48)	.85 (.397)
	Day duty fixed	3.91 (.60)		3.37 (.48)		3.34 (.49)	

* p<.05 ** p<.01 *** p<.001

Factors influencing of organizational commitment and job stress

Organizational commitment was affected by shift type ($\beta=.27$ $p<.05$) and optimism (sub-factor of positive psychological capital, $\beta=.27$, $p<.05$), with an explanation power ($F=8.74$, $p<.001$) of 22%. With regard to the effects on job stress, work overload, a sub-factor of job stress, was affected by marital status ($\beta=-.19$, $p<.05$), with an explanation power ($F=3.34$, $p<.01$) of 10%. Insufficient professional knowledge and skills shortage were affected by marital status ($\beta=-.20$, $p<.01$) and resilience (a sub-factor of positive psychological capital, $\beta=-.40$, $p<.001$) with an explanation power ($F=6.15$, $p<.001$) of 16%. Interpersonal relationship problems were affected by resilience (a sub-factor of positive psychological capital, $\beta=-.28$, $p<.05$), with an explanation power ($F=2.72$, $p<.05$) was 8%. Night shift was affected by shift type ($\beta=-.19$, $p<.05$), and its explanation power ($F=2.41$, $p<.05$) was 8 % [Table 5].

[Table 4] Correlations of study variables (N=197)

Variables	Self efficacy	Hope	Resilience	Optimism	Positive psychological capital	Positive psychological capital	Workload	Professional role conflict	Professional knowledge and skill shortages	Interpersonal problems	Appropriate reward	Night shift	Job stress
Self efficacy	1												
Hope	.75**	1											
Resilience	.63**	.73**	1										
Optimism	.65**	.76**	.76***	1									
Positive psychological capital	.84**	.91**	.89***	.90***	1								
Positive psychological capital	.34**	.37**	.36***	.42***	.42**	1							
Workload	-.13	-.16*	-.21**	-.22**	-.21*	-.19*	1						

Professional role conflict	-.15*	-.22*	-.28***	-.25***	-.26**	-.21*	.56**	1					
Professional knowledge and skill shortages	-.17*	-.17*	-.33***	-.27***	-.27**	-.06	.46**	.48**	1				
Interpersonal problems	-.13	-.20*	-.26***	-.17*	-.22*	-.14	.31**	.50**	.40**	1			
Appropriate reward	.06	-.00	-.00	.03	.02	-.10	.26**	.42**	.29**	.47**	1		
Night shift	-.08	-.07	-.08	-.03	-.07	-.16*	.34**	.26**	.16*	.13	.31**	1	
Job stresses	-.14*	-.19*	-.27***	-.21**	-.23*	-.21*	.69**	.75**	.65**	.66**	.67**	.64**	1

* $p<.05$ ** $p<.01$ *** $p<.001$

The level of positive psychological capital perceived by the subjects was 3.70 out of 6 points on average. This result is lower than 4.14 points in a study by Choi [13] targeting ordinary office workers, and 4.05 points in a study by Kim & Park [15] targeting personnel in universities. This indicates that nurses in small and medium-sized hospitals, which are the subjects of this study, have a low level of acknowledgement in their expertise and autonomy compared to large hospitals. Moreover, the job of a nurse is a complicated and specialized job that deals with human life compare to other jobs, which requires nurses to work in shifts to immediately respond to the demands of the patients around the clock. Accordingly, their negative state of mind is relatively great, thereby bringing the aforementioned results.

The difference in positive psychological capital according to general characteristics shows that the level of positive psychological capital was high with statistical significance for workers in the outpatient department and with day duty fixed. This may be due to the fact that unlike outpatient department nurses who regularly go to work, ward nurses work three shifts. Therefore, it is necessary to pay a fair amount of allowances and establish welfare policies for nurses working shifts. A study by Lee [5] targeting nurses working at small and medium-sized hospitals with 300 beds or below showed that positive psychological capital was higher for married nurses than single nurses. This result also indicates that in small and medium-sized hospitals, nurses that are married or are older tend to work in regular duty instead of shifts as managers.

[Table 5] Factors influencing of organizational commitment and job stress (N=197)

in a study by Kim [18] targeting ordinary office workers. The difference according to general characteristics shows that nurses that are age 35 or above, are married, work in the operating room or anesthesiology unit, and have day duty fixed had high organizational commitment. A study by Yoo & Choi [3] targeting nurses in small and medium-sized hospitals also shows that nurses that are age 41 or above, are married, have at least 10 years of clinical experience, and have day duty fixed had high organizational commitment. This may be due to the fact that those with at least 10 years of working experience are relatively familiar with their job and are at an adequate age level for promotion.

The job stress of the subjects was 3.39 out of 5 points on average, which was lower than 3.61 in a study by Kim [19] targeting nurses in small and medium-sized hospitals. For subcategories of job stress, Night Shift scored 3.56 and Work Load 3.55, which were both high. The study by Kim [19] targeting nurses in small and medium-sized hospitals also showed the highest score in Work Load. This result indicates that, in order to lower the job stress for nurses, it is necessary to efficiently distribute the work load, analyze the cause for the excessive work load, and come up with measures to deal with the issue. Moreover, since nurses have to provide constant round-the-clock services for their job, there must be an appropriate reward policy for night shifts that cause imbalance to the biorhythm and a plan for efficient work schedules.

The difference in job stress according to general characteristics of the subjects shows that job stress was high with statistical significance among unmarried nurses and nurses with the present hospital experience of 5 to 7 years. A study by Kim [20] targeting nurses in university hospitals showed that those with a work experience of 1 to 2 years had higher job stress than those with a work experience of less than 1 year. A study by Song [21] also proved that those with a work experience of 1 to 3 years had higher job stress than those with a work experience of less than 1 year, showing a different result from this study. This may be due to the fact that this period is when role conflicts as a nurse reach the highest level in the socialization process [21].

The correlation among positive psychological capital, organizational commitment and job stress of the subjects show that the subcategories of positive psychological capital showed a positive correlation with organizational commitment, whereas they showed a negative correlation with job stress. Among the subcategories of positive psychological capital, Optimism had the highest correlation with organizational commitment, while Self-efficacy had the lowest negative correlation with job stress. A study by Park [22] targeting bankers proved that there was a positive correlation between positive psychological capital and organizational commitment, with Self-efficacy having the highest correlation with organizational commitment. A study by Park [23] targeting office workers at conglomerates and small and medium-sized enterprises also showed that there was a positive correlation between positive psychological capital and organizational commitment, whereas there was a negative correlation between positive psychological capital and job stress. Moreover, Hope among the subcategories of positive psychological capital showed a high positive correlation with

organizational commitment, while Self-efficacy showed the lowest negative correlation with job stress, showing similar results with this study. Judging from these research findings, in order to enhance organizational commitment and lower job stress, it is necessary to reasonably establish and operate job assignment regulations to motivate the members and provide them with opportunities to produce results through their tasks, and also to develop and apply various policies related to intrinsic rewards.

Factors that affected organizational commitment were nurses with day duty fixed and Optimism from positive psychological capital. The factor that affected Work Load, a subcategory of job stress, was marital status, proving that married nurses suffered from less job stress than single nurses. The factor that affected Professional Knowledge and Skill Shortage was also marital status, proving that married nurses with high Resilience had lower stress. The factor that affected Interpersonal Problems was Resilience.

The research findings above confirm that positive psychological capital is a factor that affects organizational commitment and job stress, which raises the need to develop and apply programs that can improve positive psychological capital in order to effectively manage the pool of nurses in small and medium-sized hospitals. Furthermore, it is necessary to establish appropriate reward systems to resolve job stress caused by night shifts of nurses in small and medium-sized hospitals, and offer systematic career management for married nurses such as job positions suitable for their career experience so that they can be engaged in work with stability. This will stabilize the pool of nurses in small and medium-sized hospitals and enhance efficiency of nursing jobs, ultimately providing high-quality nursing services for patients.

Conclusion

Given these findings, it can be deduced that positive psychological capital affects organizational commitment and job stress. Nurses with higher positive psychological capital are more committed to the organization and have less job stress. These findings would ultimately provide valuable contributions to nursing management in small and medium-sized hospitals, which would in turn enhance hospital performance, ameliorating service qualities in these hospitals. To achieve the best outcome, therefore, it is imperative to develop programs that increase the positive psychological capital of nurses in small and medium-sized hospitals and effectively implement such programs.

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