

Full Length Research Paper

The influence of hospital organizational culture on organizational commitment among nursing executives

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That hospital organizational culture influences organizational commitment is an assumption implicitly held by many researchers; however, relatively few empirical studies have provided detailed insight into organizational performance by hospital executives. The purpose of this study aims to examine the impact of hospital organizational culture on organizational commitment among hospital nursing executives in Taiwan. The randomly stratified sampling method is used in this study to select 106 hospital's nursing executives from 24 medical centers in Taiwan. The data is analyzed using descriptive statistics, Pearson's correlation coefficients, and hierarchy regression analysis. A positive relationship between hospital organizational culture and organizational commitment has been reported in this study. Regression analyses also reveal that the total score on hospital organizational culture is a good predictor of organizational commitment. For the three subscales of organizational commitment, only normative commitment and affective commitment were significant. The insights garnered from the study may help nursing executives to develop specific policies to create a more positive hospital organizational culture. Implications and suggestions for future research are provided in the study.

Key words: Hospital organizational culture, organizational commitment, nursing executives.

INTRODUCTION

Culture includes "a series of cultural schema or collective knowledge structures, which are socially constructed and rely on negotiation, consensus and agreement for their sustenance" (Brooks and Brown, 2002). In terms of hospital culture, it is an important factor which helps nurses in this learning and improving process. Hospitals should focus on establishing a culture that values, recognizes and motivates employees to serve the public. However, the hospital is an organization. The definition of organization can be defined as "a tool people use to coordinate their actions to obtain something they desire or value - that is, to achieve their goals" (Jones, 2010). However, the health care sector has lagged in its understanding of how to develop effective organizational culture (Wooten and Crane, 2003). In other words, organi-

zational culture change is related to organizational performance (Scott et al., 2003).

Creating culture, managing culture, and changing culture are important leadership functions that will enable the hospital to succeed (Sovie, 1993). Organizational leaders must help their organization respond to these political, economic, cultural, and social pressures and create the kind of culture that will achieve greater organizational success (Lindner and Wagner, 1983; Schein, 1985; Sovie, 1993). For example, Kotter and Heskett's (1992) study investigated a health care organization, and found that the culture of a health care organization can directly influence its ability to manage human resources and serve patients, and ultimately has a strong impact on its economic performance. It is believed that organizational culture can influence actions and patterns of communication (Wilkinson, 2001). Due to its effects on the employees' attitudes and behaviors in workplaces, the concept of organizational commitment

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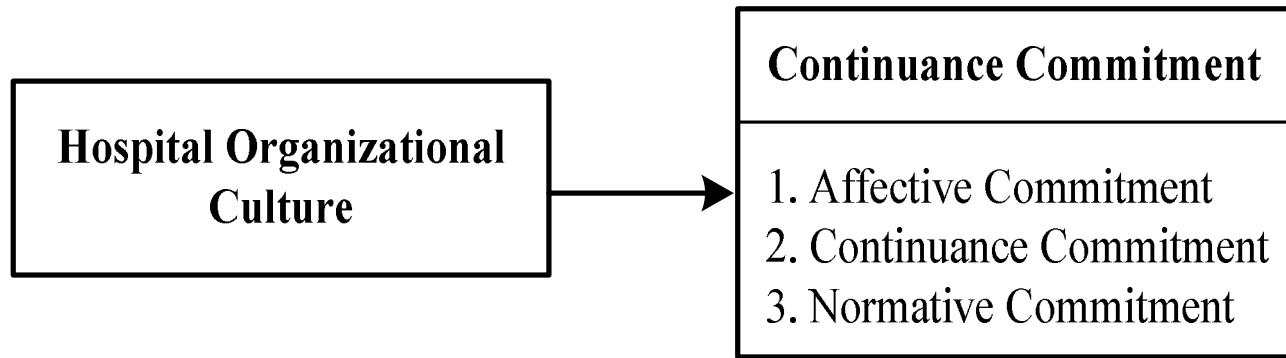


Figure 1. The Research Model.

has been investigated widely in the study of administrative organization. There have not been large-scale studies focused on organizational culture for nurses in the hospital setting. Because nursing is a female-dominated profession, the culture of nursing demands an analysis that takes into account many factors, such as stereotypical conceptions, myths, and models, since these strongly influence the way the culture of nursing develops (Suominen et al., 1997), even within hospital organizational culture.

Furthermore, organizational commitment is a bond or link between the individual and the organization (Leong et al., 1996). Organizational commitment is defined by Mowday et al. (1979) as “the relative strength of an individual’s identification with and involvement in a particular organization” and it includes several dimensions. There are many previous studies on organizational culture and organizational commitment (Gregory et al., 2009; Koh and Boo, 2004; Tzeng et al., 2002; Shirbagi, 2007; Wu and Norman, 2006). In Taiwan, the nurses with long working hours, low salaries, and heavy work pressure. Therefore, the staff turnover rate is quite high, according to the statistics of the Department of Health, 2009, in the past, nursing turnover was as high as 30%. But there is only about 5% of hospital nursing staff turnover, apparently members of each organization’s commitments made in the different tissues is not the same. In a health care system, nurses accounted for the majority of a group of front-line workers in the medical services, but also all medical professionals dealing with the patients that spend more time in the hospital are the ones that are most closely related to the patients. These medical professionals provide 24 h of service, care for the needs of the patients with the appropriate attitude to help them, and implement nursing intervention. The various functions of the nursing work in the entire hospital organization function of the system is closely integrated, high-quality clinical care will directly affect the safety of the patients. The impact of nursing manpower shortages, increased workload and patient care to nursing manpower staffing high, is worthy of attention, also as turnover increases.

Maier and Brunstein (2001) found that employees more strongly identified with their organization if they perceived it to be linked to their own personal achievement goals. It might thus be argued that the concepts of organizational culture and organizational commitment are related to each other.

Nursing executives play an essential role in a hospital. The nurse-executive roles are related to supervising a health care facility’s nursing staff, making sure operations run smoothly, organizing and coordinating systems for care delivery, and managing the resources needed for care. Furthermore, the relationship between hospital organizational culture and organizational commitment in nursing remains largely unexplored. Based on the aforementioned, the main purpose of this study is to explore the influence of hospital organizational culture on organizational commitment among nursing executives in hospitals in Taiwan. More specifically, this study aims to understand the relationship between hospital organizational culture and organizational commitment. Figure 1 illustrates the model developed for this purpose.

LITERATURE REVIEW

Hospital organizational culture

One of the major differences between hospital and other organizations is that the hospital environment is characterized by a heterogeneous mix of professional and non-professional staff (Green and Thorogood, 1998). A hospital is also characterized by its high professional level, its family atmosphere as well as its high level of employee engagement. Culture can be viewed as both dynamic and structural. “Dynamic in the sense that culture emerges in the complex interactions of human behavior, and structural in the sense that such interactions produce particular patterns (or structures) which, in turn, influence the interactions themselves” (Chapman, 2002). The organizational culture influences its built environment that, in turn, affects individual behavior (Schein, 1985).

Organizational culture can be thought of as the attitudes, experiences, norms, beliefs and values of an organization (Summerill et al., 2010). Organizational culture consists of shared meanings, beliefs, and values that ultimately shape employees' behaviors (Rashid et al., 2003). Ravasi and Schultz (2006) propose that organizational culture is "a set of shared mental assumptions that guide interpretation and action in organizations by defining appropriate behavior for various situations".

The culture of an organization has impact on the degree of commitment shown by its members. Commitment is a condition in which members of a group give their efforts, abilities, and loyalties to the organization and its pursuit of its goals in return for satisfaction. In other words, the culture creates conditions in the organization whereby members are either willing or not willing to commit themselves to the pursuit of the organization's goals in exchange for some general state of satisfaction. A strong culture can enhance the likelihood that members will display a high degree of commitment. Culture aids the attainment of member commitment by laying out the mission and the values to be observed in pursuit of that mission. Culture may also be aided by spelling out to the member the value of the organization to the individual. By committing to an organization, the member is choosing one set of options over those offered by committing to other organizations. Commitment is a type of emotional (and perhaps financial) investment in the organization (Robbins and Judge, 2011). Several factors, including salary and the physical environment, can reinforce employee commitment to the organization. Being accepted as a member of a desirable group gives an individual a strong incentive to adopt the culture as a way of life. Willingness to adopt an organization's rituals and way of life is essential to acculturation. Over time, the individual feels a sense of identity with the group and is even willing to make sacrifices for it. This, in turn, leads to a deeper sense of commitment. Thus, one of the prime requirements for, or conditions of, commitment is the sense of identification with the organization that culture provides.

In this study, the hospital organizational culture is centered around the idea that, "health care delivery systems must be concerned with understanding the implicit beliefs, values, and assumptions extant within the organization that ubiquitously motivate and shape the behavior of participating members" (Klingle et al., 1995).

Organizational commitment

Organizational commitment could be defined as "a psychological state that binds the individual to the organization" (Allen and Meyer, 1990). Organizational commitment is related to both the attitudes of employees toward an organization and certain behaviors exhibited by employees in that organization (Jernigan et al., 2002). It may also influence an employee's intention to continue to work in an organization or not. Meyer and Allen's (1991)

classification of organizational commitment are threefold: affective, continuance, and normative commitments. Meyer and Allen (1990) concluded that Affective commitment (AC) refers to an individual's positive emotional attachment to the organization. Hence, individuals who have high affective commitment are more likely to avoid being absent from their work. Continuance commitment (CC) is defined as where an individual perceives high costs with losing the current organizational membership. In general, an individual with high continuance commitment is less likely to leave the organization because of the very real costs involved in such a move (Paik et al., 2007). Finally, normative commitment (NC) involves an individual's feeling of moral obligation to continue working in the organization.

Some of the organizational culture and organizational commitment are measured as a whole (Ipek, 2010), whereas some are on one or more dimensions of organizational culture (Gregory et al., 2009; Koh and Boo, 2004; Tzeng et al., 2002) and organizational commitment (Shirbagi, 2007; Wu and Norman, 2006). Therefore, organizational culture is positively associated with organizational commitment.

METHODS

Participants

A randomly stratified sampling method was used to select a sample within 24 medical centers, a total of about 1,600 people, in Taiwan. Each medical center sent out approximately 20 questionnaires. A total of 480 questionnaires sent to response the 106, the overall response rate of 22.08%. One hundred and six nursing executives participated in this study. Results from the questionnaire were analyzed against the following four sections of participant background: age, education level, tenure, and employment status. Most nursing executives (about 55.7%) ranged between 31 and 35-years-old. In terms of educational level, the majority (about 72.6%) had a 4-year college or university diploma. The average tenure in the hospital was under 10 years (77.4%). Employment status included 42 permanent (39.6%) and 64 contract positions (60.4%). The demographic characteristics of the participants are shown in Table 1.

Procedures

To develop a valid and reliable questionnaire, this study formulated several items, based on related literature and previous research. Participants completed the questionnaire in their free time. Each participant completed a self-reported questionnaire that included two sections. The first section involved demographic information. The second section consisted of 15 items pertaining to the hospital culture scale, and 18 items concerning the organizational commitment scale. All scales comprised 5-point Likert-type items. The average time taken to complete the questionnaire was approximately 20 to 25 min.

Measures

Hospital culture

The hospital culture scale (HCs) was designed to assess the unique

Table 1. Demographic characteristic of the respondents.

Characteristics	Description	n	Percentage (%)
Age	Under age 30	2	1.9
	Age 31 to 35	59	55.7
	Age 36 to 40	42	39.6
	Age 41 to 45 or above	3	2.8
Education level	Nursing college	19	17.9
	4-year college/university	77	72.6
	Graduate school	10	9.4
Tenure	Under 10 years	82	77.4
	11 to 15 years	17	16.0
	16 to 20 years or above	7	6.6
Employment status	Permanent	42	36.6
	Contract	64	60.4

N= 106

Table 2. Correlation analysis between hospital culture and organizational commitment.

	M	SD	1	2	3	4	5
Hospital culture (HC)	2.88	0.39	-				
Affective commitment (AC)	2.92	0.69	0.59**	-			
Continuance commitment (CC)	2.92	0.49	0.25*	0.46**	-		
Normative commitment (NC)	3.10	0.55	0.24*	0.43**	0.49**	-	
Organizational commitment (OC)	2.98	0.46	0.48**	0.83**	0.78**	0.78**	-

n=106, *p< 0.05; **p< 0.01.

culture of hospital organizations (Klinge et al., 1995). The hospital culture scale (HCs) implemented in this study was developed by Klinge et al. (1995). All items are rated using a 5-point scale ranging from 1 (Very strongly disagree) to 5 (Very strongly agree). Sample items include "The physician-nurse relationship is team-oriented," "Physicians treat nurses as handmaidens, not partners," and "Physicians are rulers of this hospital." Internal consistency is measured with Cronbach's alpha ($\alpha = 0.86$).

Organizational commitment

The organizational commitment scale (OCs) adopted in this study was developed by Meyer and Allen (1991), consisting of 18 items, each of which was followed by a 5-point response scale ranging from 1 (Very strongly disagree) to 5 (Very strongly agree). The affective, continuance, and normative organizational commitment scales included in this study each comprised six items (Allen and Meyer, 1990). Sample items included "I would be very happy to spend the rest of my career with this organization," "It would be very hard for me to leave...if I wanted to leave my organization," and "I do not feel any obligation to remain with my current employer." The reliability of this scale is measured with Cronbach's alpha ($\alpha = 0.91$).

Data analysis

The data was analyzed using descriptive statistics, Pearson's

correlation coefficients, and hierarchy regression analysis to investigate the relationship between hospital organizational culture and organizational commitment. Descriptive statistics were used to describe and summarize the properties of the accumulated data collected from respondents. Correlation analysis was then used to find the relationship between hospital organizational culture and organizational commitment. Through hierarchy regression analysis, hospital culture was viewed as a predictor to explain organizational commitment.

RESULTS

Relationships between hospital culture and organizational commitment

Table 2 reports the means and standard deviations for all of the measures, as well as the inter-factor correlations matrix for the study variables. Table 2 presents the correlation coefficients of the measures. Correlations in Table 2 indicate the strong relationship between hospital culture (HC) and organizational commitment (OC) ($r = 0.48$, $p < 0.01$). Furthermore, there is a positive and significant correlation between the OC's meaningfulness subscale. In addition, HC has a significant and positive

Table 3. Hierarchy regression analysis of hospital culture on organizational commitment.

Parameter	Model 1 (OC)	Model 2 (OC)	Model 3 (AC)	Model 4(CC)	Model 5 (NC)
Age	-0.037	-0.026	-0.022	0.002	-0.040
Education level	-0.048	-0.065	-0.038	-0.131	0.003
Tenure	0.373*	0.291*	.281*	0.289*	0.123*
Employment status	0.055	0.098	-0.001	0.153	0.112
HC		0.425*	0.528*	0.203**	0.229
<i>F</i>	4.245	9.174	15.333	3.870	1.749
<i>df</i>	4	5	5	5	5
<i>R</i> ²	0.144*	0.314**	0.434**	0.162*	0.080
ΔR^2	0.110	.280	0.406	0.120	0.034

n=106, * $p < 0.05$; ** $p < 0.01$.

correlation with the AC ($r = 0.59, p < 0.01$), CC ($r = 0.25, p < 0.05$), and NC ($r = 0.24, p < 0.05$). AC has significant and positive correlation with CC ($r = 0.46, p < 0.01$), NC ($r = 0.43, p < 0.01$), OC ($r = 0.83, p < 0.01$). CC has significant and positive correlation with NC ($r = 0.49, p < 0.01$), OC ($r = 0.78, p < 0.01$). It was found that organizational culture was strongly related to organizational commitment. In fact, nursing managers with a strong hospital culture will have a positive influence on organizational commitment.

Hierarchy regression analysis

Hierarchy regression analysis (HRA) will be used to explain the relationship of the independent variables to the dependent variables. This study conducted simultaneous regression analysis to examine the independent contribution of nursing executives' background variables and HC. This study used organizational commitment and its subscales (AC, NC, and OC) as dependent variables. Gender, education level, tenure, and employment status represented nursing executives' background variables. When this study used nursing executives' background variables as the independent variables put into the regression equation step by step, Model 1 revealed that background variables were a significant predictor in explaining 14.4% on OC (adjusted $R^2 = 0.110$). The significant *F* value ($F = 4.245, p < 0.05$) indicated that the nursing executives' background variables explained a significant amount of variance in organizational commitment. Therefore, Model 1 was supported.

However, when the HC was added to Model 2, the effects of the OC increased and explained 31.4% of the variance on OC as shown by the value of R^2 (adjusted $R^2 = 0.280$). The complete equation was significant ($F = 9.17, p < 0.01$). Thus, Model 2 was supported, and it was concluded that nursing executives' background variables and HC significantly explain variance in organizational commitment.

Furthermore, the statistics on these five variables that were entered into the multiple regression equation were

given in Model 3, and explained the greatest proportion of variance on AC (increasing to 43.4% of variance explained). The complete equation was highly significant ($F = 15.333, p < 0.01$), and adjusted $R^2 = 0.406$. HC had most significant impact on the AC. Thus Model 3 was supported, and it was concluded that these five variables significantly explained variance in AC.

In Model 4, five variables were entered into the regression equation and accounted for an additional 16.2% of the variation on NC as shown by the value of R^2 (adjusted $R^2 = 0.120$). The complete equation was significant ($F = 3.870, p < 0.05$). Thus, Model 4 was supported, and it was concluded that nursing executives' background variables and HC significantly explained variance in CC. Finally in Model 5, the five variables entered into in the regression equation did not emerge as a significant variable on NC. Thus, Model 5 was not supported. From this analysis it was clear that HC had the most significant impact on the AC of nursing executives (Table 3).

DISCUSSION

This research represents only one of a few empirical studies on the relationship between hospital organizational culture and organizational commitment. This study examined the influence of hospital culture on organizational commitment. One of the main findings in this study was that AC had a greater influence on HC than CC and NC. Typically, Meyer and Allen (1991) point out those employees with a strong affective commitment will continue to be employed within an organization. These findings suggest that employees with high normative commitment are much less likely to contemplate leaving or actually leave an organization than uncommitted employees.

Additionally, the results of this study indicated that hospital organizational culture led to high organizational commitment ($r = 0.48, p < 0.01$). In other words, a positive relationship was observed between hospital organizational culture and the organizational commitment

perception of the nursing executives. However, the second result reveals that the relationship between hospital culture and organizational commitment support some previous studies. For example, İpek (2010) investigated organizational culture and commitment to predict organizational commitment from organizational culture for 415 primary school teachers in Turkish primary schools. This study reported that there was a positive relationship between hospital organizational culture and organizational commitment. According to Caccia-Bava et al. (2006), their results indicated that the importance of organizational culture was an important factor in developing absorptive capacity, and influenced the implementation of new technologies. Therefore, based on this evidence, nursing executives who perceive that their hospital organization provides them with a way of understanding and making sense of the hospital organizational culture will use this inducement to develop a strong obligation to remain. Thus, Mowday (1999) concluded that the nurses' perceptions of the workplace and their fit between the organization and their environment should have a more direct effect on commitment than the hospital culture. Moreover, the results of the study by Niehoff et al. (1990) indicated that the "overall management culture and style driven by actions of the top management are strongly related to the degree of employee commitment". These correlations in this study bring to light the importance of strong nursing executives and their roles in the overall hospital environment.

Furthermore, one of the main findings in this study was that subculture had a greater influence on commitment than hospital organizational culture. Hierarchy regression analyses reveal that the total score on hospital organizational culture is a good predictor of organizational commitment on two subscales relating to affective commitment and continuance commitment. Hospital organizational culture has a strong and positive influence on organizational commitment. However, the study helped to improve understanding of how and why the nursing executives could develop hospital organizational culture to promote organizational commitment. Moreover, Tiryaki (2005) investigated workers who perceived strong organizational culture in their workplaces and thus would feel higher organizational commitment. According to Robbins and Judge (2011), their study found that there was strong positive relationship between AC, performance, and absenteeism. On the other hand, this finding is consistent with a previous study (Silverthorne, 2004) indicating that there was a significant influence of hospital organizational culture on organizational commitment in Taiwan.

In addition, this study predicted that nursing executives with a strong HC had a positive influence on AC. HC was the strongest significant predictor in explaining 43.4% of AC. This result reveals that hospital culture can enhance affective commitment through the effective enactment of best practices. However, affective commitment is defined

as an "emotional attachment to, identification with, and involvement in the organization" (Allen and Meyer, 1990). Affective commitment can develop mainly positive work experiences (Powell and Meyer, 2004; Wasti, 2002). This finding is consistent with previous research, which suggested that individuals with a strong degree of career commitment had higher expectations from their organizations (Chang, 1999). Wasti (2002) observed that normative commitment also appears to predict positive outcomes, but not as strongly as affective commitment. However, affective commitment is clearly the strongest and most important form of commitment. Therefore, the managerial implications of the findings from this study will help hospital executives to better understand and predict whether organizational culture or affective commitment is more beneficial to their organization. For instance, Luchak and Gellatly (2007) found that affective commitment was positively associated with work effort and performance.

Conclusions

Because culture is a powerful influence on behavior, a culture that stimulates productive behaviors that contribute to company success can be a powerful determinant of long-term firm success. For example, the culture must be valuable. The culture must facilitate high patience, low costs, high margins, or some other outcomes that are conducive to adding value to the hospital. The findings of this study found that high levels of hospital organizational culture exert a positive influence on organizational commitment. The inherent value of hospital organizational culture provides a sense of identity, expectations, and rules that help the organization achieve its goal. The findings of this study suggest that good hospital culture leads to better individual performance than conventional training. This may create a strong identify that will provide the opportunity for organizational action. All members would remain within the organization no matter what happened. This study also suggests that higher quality nursing executives have positive influence on hospital organizational culture. It depicts that organizational culture can enhance organizational commitment and even hospital performance of services.

In particular, the results from this study can be used to well explain that AC is the greatest predictor (43.4%). These results indicate that employees with high levels of affective commitment feel much more positively about their organizations and wish to remain with their employing organizations (Hafer and Martin, 2006). The other overall conclusion is that managers may do things that help decrease the affective commitment attitude of hospital nursing executives through internal communication, psychological recognition, as well as other organizational activities. Furthermore, hospital managers should pay more attention towards improving the level of affective, continuous and normative commitment so as to increase hospital performance and related efforts.

IMPLICATION, LIMITATION AND FUTURE RESEARCH

This study has major managerial implications. The results of this study show that hospital organizational culture may affect nursing executives' perceptions of organizational commitment. Indeed, research has supported this recommendation, suggesting that hospital management must reform and continuously improve hospital organization through the effective use of leadership within teams and using improved communication skills. Additionally, much more attention has been paid to developing a hospital organizational culture in order to improve organizational commitment. This can be achieved by cultivating an environment in which nursing executives can continually build their knowledge and skills, and a commitment to continuous learning.

The present study has certain limitations that need to be taken into account but which may also serve as challenges for further research and contributions. This study helped to improve understanding of how and why hospital nursing executives cultivate cultural awareness and improve their organizational commitment at work. However, the results of this study may not be transferable to a different context. First, the 106 nursing executives were from 24 medical centers in Taiwan. The small sample size and limited types of projects available are also worth mentioning. The aforementioned factors have been suggested by prior studies. There are still some other factors that directly influence organizational commitment.

Future research on the development of normative commitment should also be investigated further. It is important for researchers to pay greater attention to the differences between internal links with hospital nursing executives and external links with colleagues in other organizations. As the results here suggest, future studies intending to investigate the relationship between employee satisfaction and turnover will require a much larger sample. Future research is needed to identify other mediating variables between hospital organizational culture and organizational commitment, as they would help expand our current understanding of how and why a hospital organizational culture influences organizational commitment.

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