A Study on the Correlations among Empowering Leadership, Organizational Identification, and Team Performance in Medical Industry

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ABSTRACT Once the service satisfaction of medical personnel is reduced and the enthusiasm cannot be acquired from work, the turnover rate would be increased to further affect medical manpower. Not only is the quality of services influenced, but patient safety would also be seriously affected further to harm the operation of a hospital. Aiming at Kaohsiung Municipal Min-Sheng Hospital, the medical personnel are distributed 350 copies of questionnaires in this study. Deducting invalid ones with incomplete responses, 214 effective copies are collected, with the retrieval rate 61 percent. The research results presented significantly positive effects of Empowering Leadership on Organizational Identification, remarkably positive effects of Organizational Identification on Team Performance, and notably positive effects of Empowering Leadership on Team Performance. The tests of such relationship are expected to contribute to the theory and the practice in medical industry.

INTRODUCTION

In addition to the focus on services, the achievement of service satisfaction, and on-period attention and concern similar to other service industries, the service objects in medicine industry are “patients” being taken care of by physicians and nurses, rather than healthy people. Especially, resident patients require 24 hour care and services of three-shift medical staff. Empowering leadership therefore is applied in medicine industry, allowing medical staff working more independently. Task autonomy is regarded as a key factor in the service motivation of medical staff. Once medical staff reduces the service satisfaction and is not enthusiastic at work, the increasing dismissal rate would further affect medical manpower, the quality of service, patient safety, and hospital operation. Favorable team interaction could induce the employee motivation to work positively. Medical staff identifying himself/herself as a member in the employed organization, perceiving distance from the organization, and being supported the organizational objective by organizational members are important for the organizational identification. The more identification of medical staff with the organization, the larger contribution would be made, the higher evaluation to the organization is presented, and the more harmonious work with other organizational members is performed. In this case, serving patients with teamwork would enhance the quality of service and team performance with the high service motivation and personal strength of medical staff. Furthermore, the more prestigious and respectable medical organization in the society would enhance the organizational commitment, self-esteem, and self-value of medical staff and further motivate the self-promotion. Accordingly, empowering leadership could reinforce task autonomy and teamwork, allow medical staff to have and exercise decision-making power, independently do well on the tasks, and favorably interact with team members to commonly achieve the tasks. Based on above motivation, medical staff in domestic medicine industry is studied to understand the perceived empowering leadership and the relationship among empowering
leadership, organizational identification, and team performance. The verification of the relationship is expected to contribute to the theory and practice in medicine industry.

**Literature and Research Hypothesis**

**Empowering Leadership**

Defined in Management Psychology, Empowering Leadership is a motivation structure including two different views. (1) Empowering Leadership as “enable” defines empowerment as self-efficacy or self-determination (Akhtar et al. 2013). (2) Empowering Leadership as to enhance intrinsic task motivation has a person actively and continuously completes the organization objectives through personal evaluation or awareness of the task meaning (Çalýskan et al. 2010). Management scientists explained Empowering Leadership as sharing power and authority or enabling to achieve the objectives and regard empowerment as a process and a linear state, but not the state of spots. Sharing power or authority refers to providing sufficient information and skills, opportunities, resources, and the power to participate in decisions so that the employees could achieve the organizational objectives (Grant et al. 2011; Lin et al. 2015). Apparently, Empowering Leadership is divided into two points of views.

First is the leaders’ behavior of sharing power, giving autonomy, and responsibility to the employees (Lambert et al. 2010). Second, the employees responding to empowerment as special encouragement (Lorinkova et al. 2013). Referring to Sluss et al. (2011) Empowering Leadership is divided into five dimensions in the present study.

**Leading by Example:** A leader influences the team members with personal work performance.

**Participation in Decision-Making:** A leader would make decisions by taking the team members’ information into account.

**Instruction:** A leader would instruct and help the team members become confident.

**Informing:** A leader would deliver the company tasks and philosophy to the team members.

**Expressing Concerns:** A leader would express the general concerns to the welfare of the team members.

**Organizational Identification**

Organizational Identification means an organizational member defining the relationship between oneself and the organization (Bezuijen et al. 2010; Abalasei and Cojocariu 2012). Four concepts are classified for Organizational Identification. (1) Identification is personal perceived concept without any special behaviors (Chen et al. 2011; Molina et al. 2013). (2) Identification is generated when an individual appears comparison and relationship with others (Heponiemi et al. 2011). (3) Based on the second statement, individual identification proposed in social identification theory is to enhance the dignity (Li- ang et al. 2012) that an individual would normally present self-value and positive social identification when establishing an identification concept (Lowry et al. 2013). (4) An individual reveals strong identification because he/she considers the identification would offer him the status. Parker and Collins (2010) pointed out Organizational Identification as individual perception of tight connection between organizational members and the organization, including the success and failure experiences of the company.

According to Zhang et al. (2012), Organizational Identification is divided into three dimensions in this study.

1. **Centripetal Force:** A team-centered self-concept.
2. **Group Influence:** The dignity generated from team contribution.
3. **Group Relationship:** The interpersonal relationship with other team members.

**Team Performance**

In the globally competitive environment, enterprises and organizations invest in various resources and output the desired performance and improve the organizational performance through the operation and control of organizational processes. Researchers developed new approaches for downsizing (Breukelen et al. 2012), enhancing quality (Chiaburu et al. 2011), and reducing work time (Hsiung 2012; Xu et al. 2015,), among which teamwork and empowerment were the common points. A work team was a group of dependent individuals collaboratively completing the tasks and solving problems (Liu et al. 2010). Since the task property of soft-
ware teams was special (presenting high-intelligence, high-risk, and high-innovation industries), the evaluation of Team Performance involved in the cooperation of responsibilities in the leadership structure, fluent working environments, human resource policies, organizational structure, and other changes (Martin et al. 2013; Jhuo et al. 2015). The performance evaluation was, therefore, enhanced the complexity, while team-based design became the most common and the rapidest approach to improve organizational performance. Raub and Liao (2012) explained that Team Performance and Job Satisfaction were affected by perceived intrinsic pressure from the competence of team members, the size of a team, conflict, and the members conforming to the group norms. From the group behavior model, each work team is a part of a larger organizational system that factors of organizational strategies, authority structure, recruitment procedure, and reward system would affect Team Performance. When extrinsic conditions offered high support for the team, the high-level authorities revealed extreme support, the resources were abundant, and the team members presented necessary skills and personalities for team tasks and could well cooperate with each other, the team could be predicted the high productivity.

Research Hypotheses

Aiming at the research on nurses, Brinsfield (2013) discovered that Empowering Leadership would enhance Job Satisfaction and Organizational Identification of the employees. Gajendran and Joshi (2012) proposed that Empowering Leadership allowed the employees presenting high intrinsic motivation at work to result in high Organizational Identification and high Job Performance. Jha (2011) found out the positive effects of Empowering Leadership on Organizational Identification and Self-efficacy of female sales in a medical instrument company. The following hypothesis is, therefore, proposed in this study.

\[ H1: \text{Empowering Leadership shows significantly positive effects on Organizational Identification.} \]

Loi et al. (2011) considered that higher Organizational Identification could enhance Team Performance. Morrison (2011) indicated that the employees would appear high Organizational Identification to positively affect Team Performance when the cultural value of a company being collectivism. Seibert et al. (2011) mentioned that an employee with high identification to the work duties would enhance Service Satisfaction to the public as well as Team Performance. Zhang et al. (2012) regarded Organizational Identification as the decision of customer orientation, as Organizational Identification would affect employee attitudes towards customers and further affect Team Performance. Zhou et al. (2012) indicated that Organizational Identification would enhance Organizational Performance and Team Performance. The following hypothesis is then proposed in this study.

\[ H2: \text{Organizational Identification reveals remarkably positive effects on Team Performance.} \]

Chen et al. (2011) considered that Empowering Leadership allowed the employees understanding the leadership and influence on personal work, and the past experiences could result in better Team Performance. Stressing on giving power and responsibilities, Zhang et al. (2012) regarded Empowering Leadership being able to provide sufficient information and skills, opportunities, resources, and the power to participate in decisions in the power and authority sharing processes so that the empowered person could achieve the organizational objectives. Consequently, a team leader appearing higher Empowering Leadership in human resource management would more apparently present positive effects on Team Performance. Martin et al. (2013) found out the importance of Empowering Leadership in Team Performance. Lorinkova et al. (2013) indicated that Empowering Leadership could affect Team Performance of the employees in hotels achieving significant Effectiveness. Accordingly, the following hypothesis is proposed in this study.

\[ H3: \text{Empowering Leadership presents notably positive effects on Team Performance.} \]

Research Sample and Participant

Kaohsiung Municipal Min-Sheng Hospital is a historical hospital, which was established by Governor-General of Taiwan in 1914, renamed Taiwan Municipal Kaohsiung Hospital after World War II, and changed to Kaohsiung Municipal Min-Sheng Hospital after Kaohsiung city became a special municipality. In addition to carrying out the governmental health policies and
being responsible for societies to take care of the public health in communities, it actively promotes medical services in communities and has the public actively participate in various health activities through disease screening and the promotion of health measures, based on the goal of “respect life and pursue excellence”, so as to move toward the vision of best community hospital in southern Taiwan. Aiming at Kaohsiung Municipal Min-Sheng Hospital, the medical personnel are distributed 350 copies of questionnaires. After deducting invalid ones, 214 effective copies are collected, with the retrieval rate 61 percent.

Reliability and Validity test

Validity refers to a measurement instrument being able to really measure the questions. Generally speaking, validity could be divided into Content Validity, Criterion-Related Validity, and Construct Validity. Since the questions in this study are revised from international and domestic literatures and discussed with the tutor for the pretest, the questionnaire presents certain Content Validity. The causal relation among Empowering Leadership, Organizational Identification, and Team Performance is tested in this study with Linear Structural Relation Model, and the input data are based on the correlation coefficient matrix of above observed variables. The analyses with Linear Structural Relation Model show the overall model fit reaching the reasonable range that it reveals good convergent validity and predictive validity. Kerlinger (1986) suggested testing the construct validity with item to total correlation coefficients, that is, reliability analysis, and judging the contents with such item to total correlation coefficients. The items to total correlation coefficients of the dimensions in this study are above 0.5, showing certain Construct Validity of the dimensions.

The reliability and validity of the questionnaire are further tested. According to CuieFord (1965) the higher Cronbach’s $\alpha$ presents the better reliability. The formal questionnaire is developed based on such a standard, and Cronbach’s $\alpha$ appears in 0.75–0.90, which apparently conforms to the reliability range.

RESULTS AND DISCUSSION

Favorable team interaction could induce employee motivation to work actively. When medical personnel could serve patients with teamwork, they could hold high service motivation and enhance the service quality according to personal specialties. Further, Empowering Leadership could reinforce work autonomy and teamwork that medical personnel with complete decision-making power and competence could autonomously complete the tasks and present favorable interaction with team members to collaboratively achieve the tasks

Assessment Indicators in LISREL Model

LISREL (Linear Structural Relation) model combines Factor Analysis and Path Analysis in traditional statistics and includes simultaneous equations in econometrics. It is an instrument to simultaneously calculate multiple factors and causal paths. Regarding the assessment of model fit, Bagozzi (1998) proposed to evaluate from preliminary fit criteria, overall model fit, and fit of internal structural of model.

The data were summarized in Table 1. The preliminary fit criteria, fit of internal structural of model, and overall model fit of the model were separately explained as below.

From Table 1, the five dimensions (Leading by Example, Participation in Decision-Making, Instruction, Informing, Expressing Concerns) in Empowering Leadership achieved the significance ($t$>1.96, $p$<0.05); the three dimensions (Centripetal Force, Group Influence, and Group Relationship) in Organizational Identification reached the significance ($t$>1.96, $p$<0.05), and the three dimensions (Efficiency, Effectiveness, Timeliness) in Team Performance achieved the significance ($t$>1.96, $p$<0.05) in terms of preliminary fit criteria. Apparently, the overall model showed favorable preliminary fit criteria.

Regarding fit of internal structural of model, Empowering Leadership appeared significantly positive correlations with Organizational Identification ($0.854$), Organizational Identification presented remarkably positive correlations with Team Performance ($0.773$), and Empowering Leadership showed notably positive correlations with Team Performance ($0.887$), revealing H1, H2, and H3 is being supported.

The standard of overall model fit $\chi^2$/Df showed 1.233, below the standard 3, and RMR appeared 0.008, presenting the appropriateness of $\chi^2$/DF and RMR. Moreover, chi square was sensitive to the size of samples that it was not suitable for directly judging the fit. Neverthe-
less, the overall model fit GFI=0.927 and AGFI=0.906, above the standard 0.9 (the closer GFI and AGFI to 1 revealing the better model fit), presented better fit of the model.

Obviously Empowering Leadership contributes to the Team Performance as well as Organizational Performance according to the results presented. The indicators of Empowering Leadership as stated by Parker et al. (2010) in line with the opinions of Harris et al. (2014) constituted of four indicators to evaluate individual task empowerment, including individual sense of competence, tasks being meaningful, individual choice, and impact of individual performance. In specific, (1) an empowered person has to believe oneself being able to execute the tasks or being skillful to complete the tasks; (2) an individual has to believe the completed objectives being meaningful; (3) an empowered individual has to present choices and self-decision to complete the tasks (such as task procedure, task assignment, task approach); and, (4) an individual has to perceive the actions being influential or believe the task objectives could be completed with different personal behaviors.

Williams et al. (2010) Organizational Identification was to make the routine and standard for organizational learning opportunities through equivalent behaviors. Zhou et al. (2012) regarded Organizational Identification as the primary perception of an individual and the organization. Morrison (2011) referred Organizational Identification as an employee believing oneself as a part of the organization and agreeing with the organizational mission, vision, value, and objectives that the organizational benefits would be taken into account when making decisions. Gajendran and Joshi (2012) considered Organizational Identification as an organization being treated as an entity shared by many people. Loi et al. (2011) defined Organizational Identification as the mental and spiritual combination between the members and an organization, where individual perception and self-defined emotion and perception were combined with the organization as a social essence. The definitions have one thing in common that Organizational Identification as a sense of belonging towards the organization. This study revealed that Organizational Identification’s Centripetal Force dimension is the most effective of all on forming the concept in line with the definitions mentioned in the literature.

The results are proved to be important in terms of both Empowering Leadership’s and Organizational Identification’s effect on Team Performance as mentioned in the work of Lange et al. (2014) and Chawla et al. (2015). As confirmed by the results of this study Zhang and Bartol (2010) indicated that the evaluation of

| Table 1: Analysis of linear structural relation model |
|-----------------|------------------|---------|-----|
| **Evaluation item** | **Parameter/evaluation standard** | **Result** | **t** |
| **Preliminary Fit Criteria** | Empowering leadership | Leading by example α1 | 0.783 | 6.63** |
| | | Participation in decision-making α2 | 0.816 | 11.25** |
| | | Instruction α2 | 0.755 | 8.34** |
| | | Informing α4 | 0.697 | 5.48** |
| | | Expressing Concerns β5 | 0.724 | 9.49** |
| | Organizational Identification | Centripetal force β1 | 0.882 | 10.27** |
| | | Group influence β2 | 0.843 | 16.42** |
| | | Group relationship β3 | 0.795 | 7.95** |
| | Team performance | Efficiency σ1 | 0.856 | 13.65** |
| | | Effectiveness σ2 | 0.784 | 9.73** |
| | | Timeliness σ3 | 0.847 | 14.23** |
| | | Organizational identification | 0.854 | 17.41** |
| **Fit of Internal Model** | Empowering leadership | 0.775 | 13.95** |
| | Team performance | 0.887 | 22.79** |
| **Structural of Model** | Organizational identification | 1.233 | 0.927 |
| | Empowering leadership | GFI | 0.906 |
| | Team performance | AGFI | 0.906 |
| | | RMR | 0.008 |

Note: ‘stands for p<0.05, ** for p<0.01, and *** for p<0.001.
Team Performance could be measured with Efficiency, Effectiveness, and Timeliness. Efficiency was the output-input ratio, that is, to do things right; Effectiveness was the quality of output, that is, to do right things; and, for a team, Timeliness was the subjective instinct of group operation efficiency (output, productivity, costs). In this study these three terms formed the pillars of the concept of Team Performance.

**Hypothesis Test of LISREL Model**

The relation paths are shown in Figure 1, from which the estimates between dimensions and variables revealed the significance. The hypothesis testing results are shown in Table 2.

**Table 2: Hypothesis test**

<table>
<thead>
<tr>
<th>Research hypothesis</th>
<th>Correlation</th>
<th>Empirical result</th>
<th>P</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>+</td>
<td>0.854</td>
<td>0.00</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>+</td>
<td>0.773</td>
<td>0.00</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>+</td>
<td>0.887</td>
<td>0.00</td>
<td>Supported</td>
</tr>
</tbody>
</table>

The results revealed through analysis of the data supported the three hypotheses in this study. In line with the opinions of Loi et al. (2011), Morrison (2011), Seibert et al. (2011), Zhang et al. (2012), Zhou et al. (2012), Akhtar et al. (2013) who are all stated that Organizational Identification could enhance Team Performance; similarly, the effects of Organizational Identification on the employees’ duties, welfare behaviors, and helping behaviors to further influence Team Performance. Breukelen et al. (2012), Lorkina et al. (2013), Klimov (2015) and some other researchers discovered that Empowering Leadership would positively affect Organizational Identification and Self-efficacy of employees and promote Organizational Identification and Team Performance. This view is also proved to be working in this study.

**CONCLUSION**

The research results show the notably positive effects of Empowering Leadership on Organizational Identification and Team Performance, meaning that a leader empowering the
medical personnel indeed shows the positive correlations with Organizational Identification. From the aspect of Empowering Leadership, the following results are also discovered. 1. Leading by Example: When a leader could establish the work model, the medical personnel would actively work for the appreciation from the leader or the organization so as to be empowered. Meanwhile, Organizational Identification of the medical personnel would be affected to further influence Team Performance. 2. Participation in Decision-Making: When a leader has the medical personnel perceive higher participation, the personnel would present higher Organizational Identification. The medical personnel therefore would receive enthusiasm from the participation to further affect medical manpower. Both service quality and Team Performance would be seriously influenced. 3. Instruction: The medical personnel would need a period of time to adapt to new policies or task contents. In this case, a leader or an organization actively teaching or training medical personnel would enhance the organizational identification. The medical personnel being rapidly familiar with the job would enhance Team Performance. 4. Informing: A part of medical personnel expects to achieve the organizational objectives that a leader informing and explaining the organizational objectives and policies to the medical personnel could enhance Organizational Identification of medical personnel who would be glad to work hard to achieve the organizational objectives so that Team Performance is promoted. 5. Expressing Concerns: A leader frequently concerning about the medical personnel would enhance Organizational Identification and have the medical personnel be more willing to make efforts so that Team Performance is promoted.

RECOMMENDATIONS

Summing up the results and findings, the following practical suggestions are proposed in this study.

Norm and Reward System

In comparison to the regulations, systems, and norms in European and American countries, domestic medical industry still exists in some leakage. In this case, a medical leader without proper control in the empowerment process could result in power abuse of medical personnel.

Harmonious Two-way Relationship

The results reveal the notably positive effects of Organizational Identification on Team Performance. How to promote Organizational Identification of medical personnel should be taken into consideration in medical industry. For instance, the trust of medical personnel in the leader could have the personnel present reliability, respect, and loyalty; and, the medical personnel could enhance the organizational commitment as well as favor the task by heart, invest in the job, and appear willingness and motivation to show better Team Performance by changing the value and belief, developing the potential, and being timely offered confidence.

Definite Objectives and Vision

The results present the remarkably positive effects of Empowering Leadership on Team Performance. Medical industry should allow the medical personnel presenting better creative performance, and a leader should properly have the medical personnel perceive Empowering Leadership, for example, having the medical personnel sense trust in the leader, timely encouraging the medical personnel and having the personnel believe in personal abilities of completing tasks.

REFERENCES


