ORGANIZATIONAL MANAGEMENT OF MCKINSEY'S 7S FRAMEWORK OF MEDICAL LABORATORY, MINISTRY OF PUBLIC HEALTH REGION 11, THAILAND

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ABSTRACT

Background: *Medical laboratory services are key components of public health systems. Therefore, laboratory accreditation (LA) a laboratory quality systemic development or medical laboratory standards is needed to build credibility and is a guarantee of quality in the laboratory.* ***Objectives****: The objective of this research was to study the comparison of organizational management of McKinsey's 7S Framework of medical laboratory, Ministry of Public Health Region 11, Thailand. Methods; The sample of this study composed of 114 personnel from community hospitals under the Ministry of Public health in Health region 11, which have been subsequently were reaccredited (Re-LA) by Thailand Medical Technology Council. The data collection was conducted with the instructed questionnaires by the researcher. The results were presented as descriptive statistics and considered significant by using inferential statistics by (T- test for independent variables).* ***Results:*** *The findings revealed that the mean score of organizational management according to McKinsey's 7S model in Re-LA3 ($\bar{x}$=4.06, S.D.=0.47) was higher than Re-LA2 ($\bar{x}$=3.91, S.D.=0.63). Considering in each part of McKinsey's 7S Framework, the study found that organizational strategy's mean score of Re-LA3 ($\bar{x}$=4.22, S.D.=0.46) was higher than Re-LA2 ($\bar{x}$ =3.99, S.D. =0.58) with a statistically significant difference at $p \leq .05$, $t = 2.00$, while regarding staff revealed that the mean score of Re-LA3 ($\bar{x}$=3.97, S.D.=0.42) was higher than Re-LA2 ($\bar{x}$=3.77, S.D.=0.61) with a statistically significant difference at $p = .04$, $t = 2.06$ as well.* ***Conclusions:*** *This study recommends that every organization should pay attention to the importance of all organizational management factors, especially the strategy and staff.*

Keywords: *Organizational Management; Medical Laboratory; Laboratory accreditation (LA); McKinsey's 7S Framework.*

I. INTRODUCTION

Medical laboratory services are key components of public health systems as they are essential for the detection, treatment, and prevention of disease of public health services. Therefore, an accurate and reliable medical laboratory should be available in every country. Accreditation of medical laboratory is one mean to promote quality laboratory services [1]. Laboratory Accreditation (LA) is a tool to assure laboratory quality development, the standard of the laboratory should be complied with the Thailand Medical Technology Standard with LA standard. Quality of medical laboratory is a key requirement of the necessary quality to provide laboratories with good management. Moreover, LA has been used to correct theoretical analysis and reliability (Technically Valid Results) [2]. In modern health care, it is estimated that 70% to 80% of clinical decision making is predicated upon, or confirmed by, or documented by medical laboratory test results. Efficient and effective delivery and application of laboratory testing, combined with equitable access to affordable state of the art services, are essential for delivery of good patient [3]. However, good organizational management will support the laboratory to develop quality standards.

Certification of medical laboratories evaluates not only the quality of the analysis but also the readiness of management processes within that medical laboratory. Therefore,

management has a huge role in the medical laboratory's work, resulting in laboratory management by increasing knowledge to clinicians and understanding of management system. The management change requires internal and external factors to increase the potential of competition in the laboratory and thus leading to success in the laboratory. McKinsey 7S Framework is the most often used model often used as an organizational analysis tool to assess and monitor changes in the internal situation of an organization. This model was developed by business consultants Robert H. Waterman, Jr. and Tom Peters (who also developed the MBWA "Management by Walking Around" motif, and authored In Search of Excellence) in the 1980s. This was a strategic vision for groups, to include businesses, business units, and teams. The 7 includes Structure, Strategy, Systems, Skills, Style, Staff and Shared values [4]. Accordingly, this model can be used to help identify laboratories that need to be realigned to improve performance or to maintain alignment (and performance) during other types of change to develop formal laboratories to quality standards.

Thus, the management of quality medical laboratories requires the study of the development and management of the organization in laboratories following medical technology standards. The researcher is interested in the study of the organizational management of McKinsey's 7S framework of medical laboratory, Ministry of Public Health Region 11, Thailand, as a guideline to develop the laboratory to maintain quality continuously under medical standards and international standards. In addition, other relevant departments have been promoted to study, plan, and formulate policies to improve management within the organization.

II. METHODS

2.1. Study population and setting: The sample of this study composed of 114 personnel including 75.44% of medical technologists and 24.56% of medical scientists from 32 community hospitals under the Ministry of Public health in Health region 11 that accredited according to laboratory accreditation (LA) and subsequently were reaccredited (Re-LA) by Thailand Medical Technology Council.

2.2. Study design: The data collection was conducted in the form of questionnaires. The content validity test was obtained by the IOC value ranging from 0.67 - 0.99. The reliability test was analyzed and got Alpha Coefficient, equivalent to 0.97, by Cronbach's Alpha method. Data collection was processed from December 2018 to February 2019.

2.3. Study Contents: The study of the organizational management of McKinsey's 7S framework of medical laboratory that accredited according to laboratory accreditation (LA). Especially subsequently were reaccredited round 2 and 3 (Re-LA2, Re-LA3) by Thailand Medical Technology Council.

2.4. Statistical Analysis: The data were presented as descriptive statistics to describe demographic characteristics and the organizational management considered significant by using inferential statistics T -test for the independent variables.

2.5. Ethics Approval: The aforementioned project and informed consent have been reviewed and approved by Human Research Ethics Committee, based on the Declaration of Helsinki, WU-EC-AH-2-138-61.

III. RESULTS

3.1 Demographic characteristics of respondents

A paragraph to descriptive characteristic of the participants as shown in Table 1.

Table 1. Demographic characteristic of respondents.

Demographic characteristics	Number (person)	Percent
Gender		
Male	18	15.78
Female	96	84.22
Age (year)		
< 30	35	30.7
31-40	55	48.25
41-50	15	13.16
> 51	9	7.89
Education		
Certificate in Medical Science Officer	14	12.28
Bachelor's degree or equivalent	90	78.95
Master and higher	10	8.77
Position		
Medical Science Officer	28	24.56
Medical Technologist	86	75.44
Work experience (year)		
1 – 2	16	14.04
3 – 4	13	11.4
> 5	85	74.56

3.2 Analysis of organizational management data based on the Mckinsey's 7s framework

The results of organizational management according to McKinsey's 7S framework are shown in Table 2.

The findings revealed that the mean score of organizational management according to McKinsey's 7S framework in Re-LA3 ($\bar{x}$ = 4.06, S.D.= 0.47) was higher than Re-LA2 ($\bar{x}$ = 3.91, S.D.=0.63), when considering in each part of McKinsey's 7S framework the results showed that organizational strategy's mean score of Re-LA3. ($\bar{x}$ = 4.22, S.D.= 0.46) was higher than Re-LA2 ($\bar{x}$ = 3.99, S.D. = 0.58) with statistically significant difference at $p \leq .05$, t = 2.00, regarding staff indicated that the mean score of Re-LA3 ($\bar{x}$ = 3.97, S.D = 0.42) was higher than Re-LA2 ($\bar{x}$ = 3.77, S.D.= 0.61) with statistically significant difference at p = 0.04, t = 2.06.

Table 2. Mean, standard deviation and the average scores of organizational management according to McKinsey's 7S framework between Re-LA2 (n=80) and Re-LA3 (n=34).

Organizational management according to McKinsey's 7S framework	LA	$\bar{x}$	*SD*	*t*	*df*	*p*
Strategy	Re-LA2	3.99	0.58	-1.999	112	.048*
	Re-LA3	4.22	0.46			
Structure	Re-LA2	3.98	0.59	-1.462	112	0.146
	Re-LA3	4.14	0.42			
Systems	Re-LA2	3.95	0.53	-0.111	112	0.912
	Re-LA3	3.96	0.47			
Style	Re-LA2	3.77	0.92	-1.951	106.324	0.054
	Re-LA3	4.02	0.49			
Staff	Re-LA2	3.77	0.61	-2.055	88.693	.043*
	Re-LA3	3.97	0.42			
Skills	Re-LA2	3.86	0.62	-0.843	79.958	0.402
	Re-LA3	3.95	0.48			
Shared values	Re-LA2	4.06	0.55	-0.984	112	0.327
	Re-LA3	4.16	0.52			
Total 7S	Re-LA2	3.92	0.5	-1.512	112	0.133
	Re-LA3	4.06	0.4			

* *p* value ≤ .05

IV. DISCUSSIONS

The results of comparative analysis of the average scores of the organizational management according to the Mckinsey's 7S framework found that the comparative analysis of the average scores between groups had no difference in the quality of laboratory management (p=.133, t=1.512). From these observations, the management of medical laboratories focuses on developing professional standards to build credibility and gain acceptance from users resulting in the analysis of the overall level of the organization with no difference between groups. In view of each part of McKinsey's 7S Framework, the results showed that organizational strategy (p=.05, t = 2.00) and staff (p=.04, t = 2.06) had significant differences at p-value .05. Strategy from 97.06% of personnel working in the Re-LA3 medical laboratory had a higher average score of organizational management. It can be discussed that according to those people the clear strategy of the organization will lead to the development of the organization to obtain higher quality. Consistent with other research, the study found that the more clarity of the strategy, the work of the personnel and the organization can achieve the desired goals efficiently and effectively and it is a positive factor that can predict the success of the development of the quality of the organization [5, 6]. Each organization must implement that strategy together with monitoring the

assessment of the performance according to that strategy as well [7, 8, 9].

For staff, this factor is an important part that helps and supports the management in the organization successfully. It was shown that personnel had a high level of understanding of their roles ($\bar{x}$ = 4.01, S.D. = 0.63) with suitable qualifications for the position ($\bar{x}$ = 4.04, S.D. = 0.63). Having good skills in personnel management is the key of the operations of the organization to achieve its goals [10]. The skills and capability were used to perform work, leading to effective work. Moreover, personnel training will help improve operational skills and lead to the success of organizational management [2, 11].

V. CONCLUSIONS

This research finding indicated that the average score of overall organizational management had a high-level sorting from high to low, including Shared values, Strategy, Structure, System, Skills, Styles, and Staff respectively. The results also exhibited that the Re-LA3 of the medical laboratory had a higher average score of management compared with Re-LA2 in all aspects and differences in Strategy and Staff.

Acknowledgements: "This research work has been funded by Walailak University (no. 20/2562)". The researcher would like to thank the experts for helping assess the questionnaire and the heads of hospital laboratory and all personnel in hospital, Phatthalung Province and the Frist-level hospital (Community hospital) under Health region 11 that kindly supported facilities and cooperated in data collection and answered the questionnaire.

Conflict of Interest: The authors declare that they have no conflict of interest.

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(Received: 2/11/2019 - Accepted:28/03/2020)

EFFECTIVE COUNSELING PROGRAM ON IMPROVING MATERNAL UMBILICAL CARE ON NEWBORNS

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ABSTRACT

Background: *Umbilical cord care was a concern for mothers, but now umbilical cord infection has been increasing in rural areas. Every year around the world, about 2.6 million newborns die, among them, sepsis accounts for 47% of the cause of umbilical cord. In Vietnam, the rate of neonatal infections accounts for 32%; Neonatal mortality rates are 3-4 times higher in mountainous and remote areas than in urban areas and in lowland areas.* ***Objective****: Determining rate of mothers 'knowledge, practice and change between mothers' knowledge and practices in umbilical care before and after the intervention.* ***Subjects and research methods:*** *The study used non-control intervention to evaluate the effectiveness of mother's umbilical care intervention program at home. Knowledge and practice will be assessed through self-fill questionnaires and umbilical care process according to guidelines of the Ministry of Health 2016, research conducted from 01/2019 to 07/2019 including 68 mothers after birth ≥ 24 hours and randomly assigned according to the obstetrics list, Hong Ngu General Hospital. Subjects must practice independent umbilical care before discharge.* ***Results:*** *The study results showed that the mother's knowledge and practice of umbilical care before counseling 2.9% (3 ± 2.15), after counseling 73.5% (7, 1 ± 1,3); There was a correlation between maternal umbilical cord care and practice on newborns.* ***Conclusion:*** *We affirm that this counseling program brings mothers' knowledge and confidence in the care of newborn navel at home. This helps prevent umbilical cord infection in babies.*

Keywords: *Umbilical cord, infection, solution, neonatal death, postpartum, guidelines.*