Using Change Theory to Examine the Nursing Informatics Development in Taiwan

Chi-Szu CHO[a] and Polun CHANG [a]

[a]*Institute of BioMedical Informatics, National Yang-Ming University*
Taipei, Taiwan ROC

Abstract The purpose of this study is to apply Kurt Lewin's change theory to examine the nursing informatics development in Taiwan. The first stage, Unfreezing, is using Excel VBA training program to educate the nurses; the second stage, Change, is establishing the "Taiwan Nursing Informatics Association (TNIA)"; in the final stage, Refreezing, we are still working on new strategies to promote the NI nationwide. The recent challenge of nursing informatics in Taiwan is lack of programs to introduce the NI more systematically and thoroughly.

Keywords: Change Theory, Nursing Informatics Development

Introduction

Lewin's change theory includes three stages: unfreezing the current level, changing or moving to the new level, and refreezing at the new level[1]. The first stage, unfreezing, involves the identification of the current need or problem[2].
Before 2002, nursing informatics in Taiwan was scattered and unsystematic. The nurses seem conservative and afraid of technology. Significant nursing informatics development in Taiwan started in 2002, we held many nursing informatics training programs by using Excel VBA program for the clinical nurses, nursing managers, nursing students and etc. More than 300 nurses have attended these programs. Then we established the "Taiwan Nursing Informatics Association (TNIA)" in 2006, and held 2 international conferences each year and thousands of nurses have attended.

Method

We use Lewin's change theory as the theoretical framework and informatics competency for nurses to examine and determine our current achievements and future strategies. The data of nursing informatics development in Taiwan were collected from 2002 to 2008.

Results

Table 1 presents the nursing informatics development in Taiwan. The first stage, unfreezing, is from 2002 to 2005 to identify the need of promoting nursing informatics. The second stage, change, is from 2005 to now to establish the "Taiwan Nursing Informatics Association (TNIA)" in 2006. Currently, there are about 314 members in this association and increasing continually. Furthermore, we have held the "Nursing Informatics Symposium in Taiwan" since 2006 and invited many foreign NI leaders to join us and to promote the NI.

The nursing informatics competency framework[3] are used to examine what we have done. We have worked for improving the computer skills, informatics knowledge and

informatics skills of nurses and encouraged to set up nursing informatics specialist in hospital. The next step is using more advanced skills (e.g. research and practice skills) to improve nursing informatics and build up a role model.

Table 1. Nursing informatics development in Taiwan

Stage (time)	Events	Impact
Unfreezing (2002~2005)	● To attended international conferences (AMIA 2002, NI 2003, AMIA 2004) ● To held 12 nursing informatics programs and conferences nationwide	● To identify the needs of promoting nursing informatics
Changing (2005~now)	● To established the "Taiwan Nursing Informatics Association (TNIA)" in 2006 ● To held the "Nursing Informatics Symposium in Taiwan"	● To set up the organization to integrate the nursing informatics
Refreezing	New strategies	–

Table 2. Nursing Informatics Symposium in Taiwan

Time	Foreign NI leaders	Members
2007	● Charlotte Weaver (Chief Nurse Officer, VP, and Managing Director of Patient Care Systems) ● Janice Turek (E-Health Specialist Winona Health Service) ● Kathryn Hannah (Professor (ADJ) Department of Community Health Sciences Faculty of Medicine University of Calgary, Alberta, Canada) ● Thomas Wong (Dean, Faculty of Health and Social Sciences, The Hong Kong Polytechnic University)	● About 125
2008	● Brian Gugerty (Principal Consultant–Gugerty Consulting, LLC) ● Poon, Wai Kwong (Nursing Administer, Hong Kong Adventist Hospital) ● Jeongeun Kim (Informatics Nurse Specialist, Assistant Professor, College of Nursing Seoul National University) ● John S. Silva (Associate Professor, Department of Surgery, Uniformed Services University of the Health Sciences, Bethesda, MD) ● Marion Ball (Fellow, Center for Healthcare Management, IBM Research) ● Rosemary Kennedy (Director of Clinical Informatics, Siemens Medical Solutions USA) ● Virginia Saba (Honorary PhD, RN, FAAN, FACMI, LL, Distinguished Scholar, Adjunct-Georgetown University, Washington DC; Adjunct Professor–USUHS, Bethesda, MD)	● About 213

Conclusion and Discussion

The nursing informatics development in Taiwan landmarkedly started from 2002, the holding of Excel VBA training programs have successfully introduce the NI. The establishment of TNIA becomes the key cornerstone for us to make change.
Now the challenge is to make nursing directors and all nurses understand the importance of nursing informatics, and develop the systematic educational programs and strategic plans to expand and deepen the nursing informatics.

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Email Address for Correspondence: chiszu@gmail.com.tw