

# Hospital Authority Convention 2014

## Fulfilling the Need for Information of Family Members of Critically Ill Patients: The Use of an Interactive Mobile Technology

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## *HA Annual Plan Key Features*

Allay staff shortage and high turnover

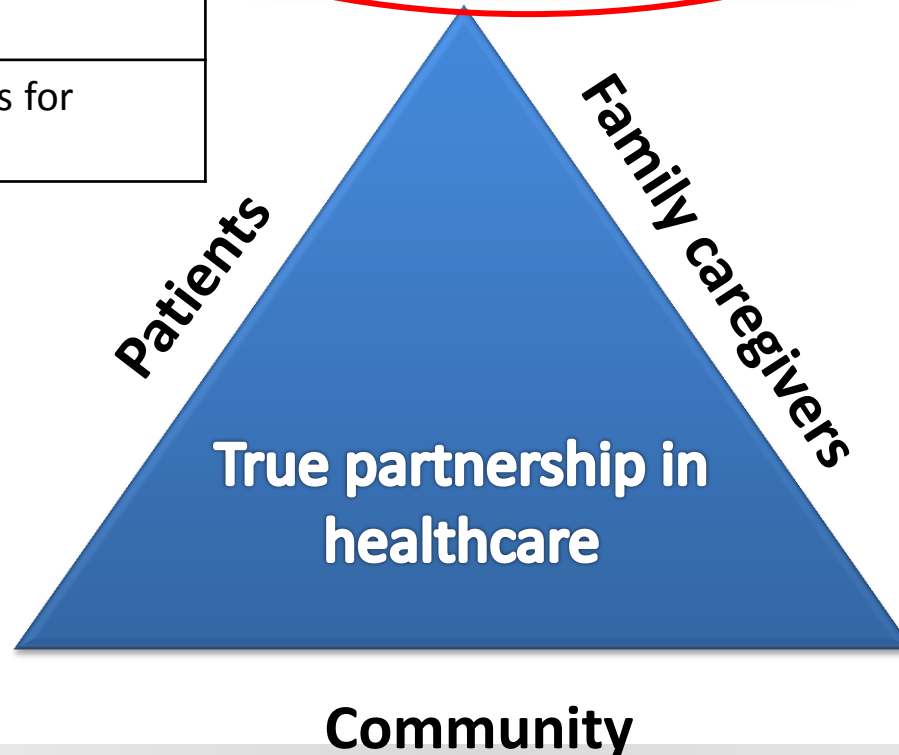
Better manage growing service demand

Ensure service quality and safety

**Enhance partnership with patients, and community**

Ensure adequate resources for meeting service needs

## Consolidating Health Care



北區醫院  深切治療部  
共同護理計劃



為了使病者得益，  
本部門誠意邀請家屬參與此計劃，  
詳情可向護士查詢。



優質  
實致  
醫療  
服務

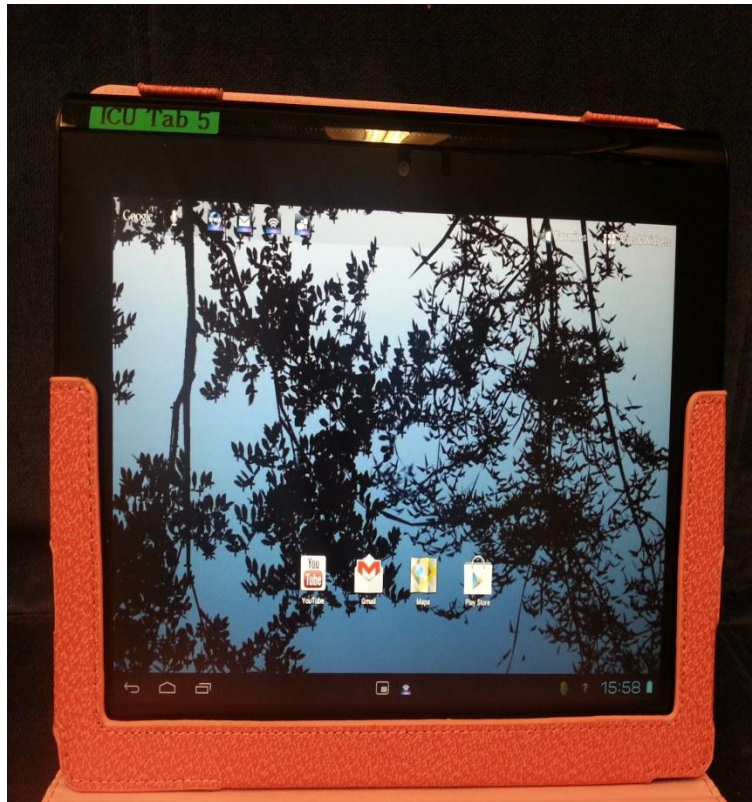


**We want families psychologically and emotionally strong. Thus they can support their relatives with critical illness during difficult time. Ultimately it may lead to an overall improvement in health care service quality.**

# AIMS

- 1. To evaluate and compare the effectiveness of informational support to stress and anxiety level of main family members of ICU patients**
- 2. To evaluate the satisfaction of informational support provided either by the tab or ICU nurses**

# Informational Support



**The Tab**



**ICU Nurses**

# Methods

- Randomized controlled trial
- Venue: Intensive Care Unit, North District Hospital
- Main Family members of ICU patients who had given their consents formed the sample
- Recruited: N=74
- Investigation Period: Oct 2012 to Oct 2013

# Instruments

- Demographic Data Sheet
  - Collect participants' gender, marital status, level of education, relationship with ICU patients, APACHE II
- The Chinese Version of the Depression Anxiety Stress Scale (C-DASS)
  - To evaluate levels of stress and anxiety of the participants
- Society of Critical Care Medicine's Family Needs Assessment Questionnaire-Communication and Physical Comfort Scale (SCCMFNA-CPC)
  - To evaluate satisfaction on informational support delivered either by the tab and ICU nurses

**Lovibond & Lovibond, 2004; Molter, 1979; Leske, 1983**

# Work-flow of the study

Participant Selection based on two indicators

1. The APACHE II score of the patients should be 18 - 20
2. The participants should be able to speak and write Chinese

Conducted the demographic and C-DASS assessment

*24 hours after ICU admission*

ICU Nurses IS Group  
(Control)

A Tab IS Group  
(Intervention)

Conducted the C-DASS assessment and SCCMFNA-CPC assessment

*48 hours after ICU admission*



Demographics	Intervention (n=39)	Control (n=35)		
	Frequency (%)	Frequency (%)	$\chi^2$	p
<b>Gender</b>			<b>3.25</b>	<b>0.071</b>
Male	11 (28%)	17 (48%)		
Female	28 (72%)	18 (52%)		
<b>Marital Status</b>			<b>1.2</b>	<b>0.549</b>
Single	10	12		
Married	26	19		
Divorce / Separated	3	4		
<b>Relationship with ICU patients</b>			<b>8.04</b>	<b>0.091</b>
Spouse	7 (18%)	2 (5.7%)		
Sibling	4 (10%)	1 (2.9%)		
Parent	7 (18%)	14 (40%)		
Children	16 (41%)	16 (45.7%)		
Others e.g. grandchild	5 (13%)	2 (5.7%)		
<b>Level of Education</b>			<b>5.02</b>	<b>0.285</b>
Preparatory	0	2 (5.7%)		
Primary School	5 (12.8%)	1 (2.9%)		
Secondary School	20 (51.3%)	18 (51.4%)		
University or above	12 (35.9%)	14 (40%)		
<b>APACHE II</b>			<b>6.06</b>	<b>0.869</b>
<b>C-DASS pre-test scores</b>			<b>23.87</b>	<b>0.093</b>

*Between group comparison: There was no significant different in stress level between a tab and ICU nurses group. But the mean (5.48) in the tab group was lower than the ICU nurses group (mean: 6.33). The tab group was less stress after the informational support.*

<b>Stress Level</b>	Pre		Post	
	M	SD	M	SD
Control (n=35)	6.60	4.93	6.33	5.82
Intervention (n=39)	6.67	4.70	5.48	4.72
t		0.60		
p		0.95		

*Between group comparison: There was no significant difference in anxiety level between the groups. But the mean (3.37) in the tab group was lower than the ICU nurses group (mean: 4.33). The tab group was less anxious*

<b>Anxiety Level</b>	Pre		Post	
	M	SD	M	SD
Control (n=35)	3.77	4.30	4.33	4.27
Intervention (n=39)	4.10	3.63	3.37	3.69
t		0.36		
p		0.72		

*Within group comparison: There was significant different in stress and anxiety level in the tab group. Reduced in mean data reflected that the tab informational support was effective to reduce stress and anxiety*

Intervention / <b>The Tab Informational Support Group (n=39)</b>					<i>p</i>
	<u>Pre-test</u>		<u>Post-test</u>		
	M	SD	M	SD	
<b>C-DASS</b>					
<b>Stress</b>	6.67	4.70	5.46	4.72	< 0.001
<b>Anxiety</b>	4.10	3.63	3.37	3.70	< 0.001

*Within group comparison: There was significant different in stress and anxiety level in the ICU nurses group. Reduced in mean data reflected that the ICU informational support was also effective to reduce stress and anxiety*

	Control / ICU nurses Informational Support Group (n=35)				<i>p</i>
	<u>Pre-test</u>		<u>Post-test</u>		
	M	SD	M	SD	
<b>C-DASS</b>					
<b>Stress</b>	6.60	4.93	6.33	5.82	< 0.001
<b>Anxiety</b>	4.33	4.30	3.77	4.30	< 0.001

*Between group comparison: The mean scores indicated that the participants were very satisfactory to both the tab and ICU nurses provided informational support.*

	Intervention (n=39)		Control (n=35)	
	M	SD	M	SD
<b>SCCMFNA-CPC Satisfaction Score</b>	<b>26.53</b>	5.66	<b>26.68</b>	4.95
<b>t</b>			-.104	
<b>p</b>			0.92	

# Discussion and Conclusion

- Family members often seek to maintain the equilibrium and function of the family structure by supporting each other throughout any critical moment
- It is important for nurses to provide informational support to Chinese families at the earliest opportunity
- **The first 24 hours appears to be the best moment**

# Discussion and Conclusion

- Both the tab and ICU nurses informational support are satisfied by the Chinese families to fulfilling their need for information
- Although utilization of the tab has a potential to aid improvement of healthcare quality in the context of informational support, the role of ICU nurses to provide support and act as active listeners to the families of ICU patients during the crises in their lives are still crucial



# Acknowledgements



