

ORIGINAL RESEARCH

ToUCH Program on competence, occupational stress and self-efficacy of newly graduated registered nurses in United Christian Hospital: A mixed method research study

Lap Fung Tsang*, So Yuen Alice Sham, Sheung Lan Winnie Law, Yuen Man Chan, Ching Yi Sze

Nursing Services Division, United Christian Hospital, KLN, Hong Kong

Received: February 23, 2016

Accepted: March 28, 2016

Online Published: April 11, 2016

DOI: 10.5430/jnep.v6n8p129

URL: <http://dx.doi.org/10.5430/jnep.v6n8p129>

ABSTRACT

Introduction: Despite the structural concept and framework of the preceptorship program developed by Hospital Authority could facilitate the transitional period amongst preceptees, during implementation, the content of the program solely emphasizes on the skill and knowledge and the aspect of psycho-social support is being neglected.

Objectives: The aims of this study were to facilitate smooth psycho-social and professional reality integration for first-year preceptees during the transition to Registered Nurses in UCH, to foster a caring culture for newly graduated RN and to promote a sense of belonging and commitment to ToUCH.

Method: The ToUCH program entails 3-domain of integrations and 6-stage of themes. A mixed method research study was conducted between 11th August 2014 and 16th July 2015. Three validated questionnaires were adapted to assess preceptees' competencies, stress level, and coping ability respectively along their employment of first year.

Result: All newly graduated registered nurses in August 2014 ($n = 98$) with majority of female (71.4%) were invited to participate in the study. Using a ANOVA test to compare the difference of measuring outcomes at baseline and other 4 measuring points after program commencement, there was a significant increase in overall mean clinical competence [$F(4, 473) = 13.53, p < .0001$]. The overall mean Occupational Stress Scale of Newly-graduated Nurse (OSSNN) was significant improvement [$F(4, 471) = 8.5, p < .0001$]. It was found that new graduates had a significant improvement in goal-setting, effort investment, persistence when encountering barriers and recovery from setbacks [$F(3, 371) = 7.77, p < .0001$]. When comparing the 2013 preceptee's resignation rate, the 2014 preceptee's resignation rate has prominently proved the ToUCH program more effective to increase retention. It was found that the rate of resignation due to work stress was sharply decreasing from 5 to 1 out of 85 and 101 preceptees 2013 and 2014 respectively.

Conclusion: This one-year ToUCH program can increase preceptees' confidence in providing patient care, cope with stress more effectively as well as return quickly to state of mind after suffering stress. Based on the findings, increased skill competencies and improved stress level suggest that the ToUCH program enriches bonding, promotes sense of belonging and maintains a high retention rate of new graduates.

Key Words: ToUCH program, Newly graduated nurses, Senses of belongings, Commitment, Affective, Nursing retention, Transition

*Correspondence: Lap Fung Tsang; Email: tsanlf1@ha.org.hk; Address: Room 5B, 5/F, Block L, United Christian Hospital, 130 Hip Wo Street, Kwun Tong, KLN, Hong Kong.

1. INTRODUCTION

The HA Preceptorship Program has been launched since 2002. The aim of this program is to support the newly recruited nurses to meet the competence requirements of nursing practice in Hospital Authority (HA). Through the program, nurses can integrate knowledge into the clinical environment, take up a new role, ensure quality of care, and consolidate core clinical skills and meeting the competence level of a registered nurse (RN).

Despite the structural concept and framework of the preceptorship program which could facilitate the transitional period amongst preceptees, during implementation, the content of the program solely emphasizes on skill and knowledge and the aspect of psycho-social support is being neglected. Consequently, the new graduates sustain high levels of stress consistently during the first year of their nursing career.^[1] Some of them experience frustration, loneliness and struggling to continue their profession, accounting for a high turnover rate.^[2] A study reported that the newly graduated nurses intended to leave their current job commonly at the first three to six months of employment.^[3] As reported by a study from Brewer, about 60% of newly joined graduates would leave their working organization in the first year of employment.^[4] In Hong Kong, resignation rates of preceptees in recent years ranged from 2011 to 2013 are 8.5%, 14.5% and 6% respectively in the United Christian Hospital (UCH), one of the public hospitals. It is of utmost importance that the reasons of their withdrawal behavior of new graduates are essentially revealed.^[5]

The major reason of resignation of preceptees is due to a stressful work environment coupled with inadequate support from staff and human resource management during the transition from student to professional practice.^[6] Actually, Pigott found that newly graduated nurses who worked less than one year experienced greater occupational stress and had a higher dropout rate.^[7] Nowadays, new graduates are mostly trained using a theory approach in University instead of a practical skills approach in hospital-based training center. Nursing students do not have enough practical time on caring patients in clinical settings despite fulfilment of minimum hours of clinical practicum according to the regulation of Nursing Council. Therefore, new graduates find difficulty in adaptation of unfamiliar and complex working environments. Without adequate support, a negative consequence can be revealed from the remarkable medical incidents.^[8]

In view of this, the UCH Nursing Services Division hopes to facilitate smooth psychological, social and professional reality integration for new graduates to transit as a registered nurse. We hope to advocate a holistic physical and

psycho-social approach to enrich the sense of belonging, strengthen their confidence, and promote self-actualization of new graduates, psychological and peers support in terms of love and care from the work place. An orientation and induction program was re-designed and re-named as ToUCH program to support the transition process indicated increased new graduates' satisfaction and improved retention.^[9]

The aims of the study were to facilitate smooth psycho-social and professional reality integration for first-year preceptees during the transition to RN in UCH, to foster a caring culture for newly graduated RN and to promote a sense of belonging and commitment to ToUCH.

2. METHOD

2.1 Programme design

2.1.1 Phase I: Focus group establishment

A focus group composed of general manager of nursing (GMN), department operation managers (DOMs), senior nursing officers (SNOs), ward managers (WMs) and Clinical Teachers (CTs) was formed to discuss the design and contents of the ToUCH program in May 2014.

2.1.2 Phase II: ToUCH Programme development

Based on experience sharing of all members, and the evaluation results of departmental RN and EN Induction program 2013, the following stages were formulated.

(1) Objectives

- To provide support for first-year preceptees for facilitation of their social integration into the workplace and their sense of belongings to hospital;
- To nurture caring attitude through patient-journey experiential learning and life-and-death education;
- To care for the carer by enhancing cognitive awareness with positive thinking through stress reduction and resilience skills training;
- To equip with professional competent skills and confidence for safe and quality care delivery through
 - clinical knowledge and skills teaching sessions;
 - simulation-based training workshop.

(2) Three-domain of integration and six-stage of themes

The ToUCH program entails 3-domain of integrations and 6-stage of themes. The 3 domains include 1) sense of belonging & commitment in good nursing, 2) knowledge and skills, and 3) affective domain. Teaching methods in the 6-stage of themes are adopted with interactive and stimulation teaching and learning, demonstration and return demonstration, small group case studies, activities sharing, presentation and reflection. The 6 stages include 1) "ToUCH with heart", 2)

“O-ToUCH”, 3) “Keep in ToUCH”, 4) “Mind ToUCH”, 5) “Hi-ToUCH”, and 6) “ToUCH-up” (see Figure 1 and Table 1).

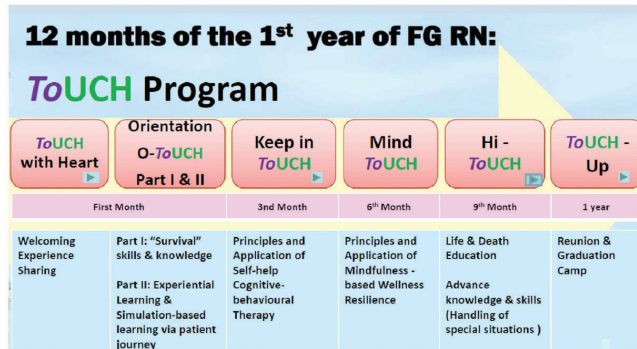


Figure 1. Overview of 2014 ToUCH Program

Table 1. Schedule of the 6 stages of the ToUCH program 2014

Theme	Date	Activities
ToUCH with heart	11/8/14	Welcoming, Experience sharing, History and Story Telling of UCH
Orientation ToUCH	12-15/8/14	Exploratory and simulation based learning via patient journey
Keep in ToUCH	7, 21/11/14 (Identical)	Principles and application of Self-help Cognitive-Behavioral Therapy
Mind ToUCH	17, 24/1/15 (Identical)	Principles and application of Mindfulness-based Wellness Resilience
Hi-ToUCH	21, 28/3/15 (Identical)	Advance clinical knowledge and skills
ToUCH - up	16 July 2015	Reunion and graduation ceremony

Sense of belongings and commitment in good nursing

In order to promote self-esteem and importance of individual preceptees, they were welcomed by senior management in the hospital, such as hospital chief executive (HCE), GMN, DOM and WM at the beginning of the program. Apart from the introduction of the hospital history, successful survival skills and touching stories are shared by preceptees of 2nd year. They strengthen the understanding of preceptees on our history of UCH, and enhance their sense of belonging. In addition each preceptee is provided an opportunity to experience a simulated patient journey from admission to discharge. It offers a simulated real-life experience to enhance the “empathy-based care”^[10] through self-reflection of being a patient, and to motivate preceptees to render caring and safe patient care in clinical practice.

Knowledge and skills

Preceptees were empowered through simulated scenarios

with the introduction of basic and advanced clinical practical skill, operation of the common devices, documentation and skills in clinical handover. The use of simulation training has gained its benefits to nurses in learning experience clinically^[11] and acquiring nursing skills and decision making skills.^[12] Preceptees could improve their critical thinking skills and clinical reasoning through simulated scenarios.^[13]

Affection

Facing life and death situation of critical ill patient, interpersonal relationship with paramedical staff, and adapting to hierarchical nursing culture are some significant challenges which lead to psychological burden on new graduates.^[14] Therefore two identical sessions of ‘principles and application of self-help, cognitive-behavioral therapy and mindfulness-based wellness resilience’ are arranged to promote self-awareness, self-compassion, healthier life with more adaptive lives, and awareness of dysfunctional thoughts and cognition, by applying basic cognitive therapy techniques to alleviate psychological distress. In addition, life and death education is also offered to strengthen skills in handling life-and-death situations. The sessions were conducted by a Fellow of Academy of Cognitive Therapy USA offered psycho-education on adverse effects of unhelpful beliefs and automatic thoughts, and problem-solving training on identifying and tackling these cognitive distortions.

A round-up day camp was organized to bring the conclusion and reinforcement during their first year of nursing career. Further it aims not only to reflect the purpose of nurses’ role and strengthen their potential in the commitment of work, but speed up their values in the nursing profession. Personal growth, team effectiveness, professional life, passion of care, and encouragement to their professional career in nursing would be further reinforced at the end of the one-year program.

2.2 Study design

2.2.1 Data collection and study period

A mixed method design employing both qualitative and quantitative data collection methods was used with reference to the Office of Behavioral and Social Sciences Research.^[15] A longitudinal study using convenience sampling design using three sets of validated questionnaires was conducted between 11th August 2014 and 16th July 2015. Meanwhile qualitative in-depth interviews were carried out by LFT and YMC, both English and Cantonese, dependent on the respondents using a convenience sampling method. Qualitative data were collected at 1st, 7th and 11th month whereas quantitative data were collected at baseline and 1st, 3rd, 7th and 11th month of their first year throughout the ToUCH program.

2.2.2 Sample size

Since there were total 98 newly graduated registered nurses employed in August 2014 in UCH, all of them were invited to take part in the study.

2.2.3 Outcome measurements

Apart from the demographic data including level of education, age and graduated from which one of the training institutes, participants received two following self-administered questionnaires validated with satisfactory psychometric property test at different training phases.

- Adapted Clinical Competence Questionnaire (CCQ) for evaluation of 'nursing professional behaviors' (NPB) (16 items) and 'skill competencies' (SC) (31 items);^[16]
- Adapted Occupational Stress Scale of Newly graduated Nurse (OSSNN) for evaluation of 'workload subscale (WS), interpersonal relationship subscale (IRS), and ward management subscale (WMS)'.^[17]

The CCQ is a 47-item 5-point Likert scale. Each item score ranges from 1 (do not have a clue) to 5 (know in theory, competent in practice without any supervision). A higher score indicates higher competence. Cronbach's alpha for the entire CCQ was .97 and was .95 for both the nursing professional behaviors and the skill competencies subscales in this study.^[11] Inter-rater reliability, internal consistency and content validity were conducted to validate the captioned scale.

The revised Occupational Stress Scale of Newly-graduated Nurse (OSSNN) included 35 items rated a 6-point Likert scale, from 0 (no pressure) to 5 (extreme pressure). The total score of this scale ranged from 0 to 175. Higher scores stand for higher levels of perceived occupational stress. Inter-rater reliability, internal consistency and content validity were conducted to validate the captioned scale.

In addition, participants had self-administered the General Self-Efficacy Scale (GSES) in 1st month of employment for the assessment of a general sense of perceived self-efficacy with the aim in mind to predict coping with daily hassles as well as adaptation after experiencing all kinds of stressful life events in clinical settings.^[18] The GSES has been used internationally with success for two decades. It is suitable for a broad range of applications with the Cronbach's alphas ranged from .76 to .90, with the majority in the high .80s. Criterion-related validity is documented in numerous correlation studies where positive coefficients were found with favorable emotions, dispositional optimism, and work satisfaction.^[19] Negative coefficients were found with depression, anxiety, stress, burnout, and health complaints.

For the qualitative in-depth interviews using a focus group, a question guide was finalized after the discussion by SLL, LFT and YMC according to the quantitative survey. The guide included questions around the perception or feeling of new graduates, the most difficult situation, and the support or guidance required. A total of four to eight informants were interviewed at different data collecting points in order to gather more and deepen information complementing the quantitative findings. All interviews were not recorded digitally because respondents did not agree. They were recorded and translated to English and verified by LFT and YMC at the end of each interview.

2.3 Ethical considerations

The participants were given an information sheet wherein title, objectives, expectations, aims and objectives of the study were explained. Confidentiality was upheld. Ethical approval was obtained from the Research Ethic Committee (Kowloon Central/Kowloon East) (Ethical approval: KC/KE-14-0172/ER-7).

2.4 Data analyses

All data analyses were analyzed using SPSS, version 22.0 (SPSS Inc., Chicago, IL). All tests were 2 sided and *P* values less than .05 were considered statistically significant. All newly graduated nurses in this study received the ToUCH program and therefore the program was not treated as an independent variable. Participants' demographic information and levels of major measured variables would be analyzed by descriptive statistics. Normality of the measured variables was tested using the Kolmogorov-Smirnov test. Spearman's correlation would be used to examine relationships between measured variables that were not normally distributed whereas Pearson correlation would be used for normally distributed variables. The Generalized Estimating Equations analysis would be used to analyze longitudinal and repeated measured data for clinical competence to understand changes across the five data collection points (baseline, one, three, seven, and eleven months after employment) with references to clinical competence, occupational stress and general self-efficacy. The main advantage of Generalized Estimating Equations analysis resides in the robust estimation of parameters' standard errors, even when the correlation structure is mis-specified. It could be more confident to conclude findings regarding data that arise from a longitudinal research design using Generalized Estimating Equations survival analysis.^[18]

3. RESULTS

For the occupational stress, there were significant improvement along the programme on workload subscale [$F(4,$

471)=9.09, $p < .0001$], interpersonal relationship subscale [$F(4, 471) = 5.21, p < .0001$], and ward management subscale [$F(4, 471) = 7.25, p < .0001$] (see Figure 2).

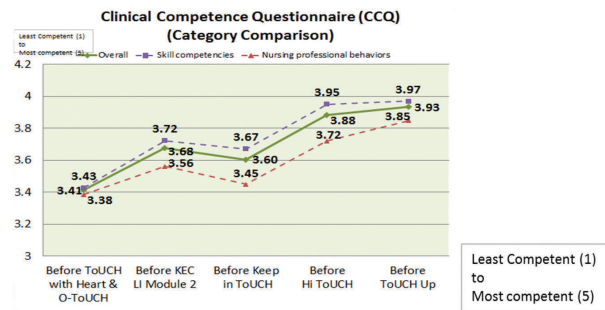


Figure 2. Mean score of self-perceived competencies and its subscales along with the programme

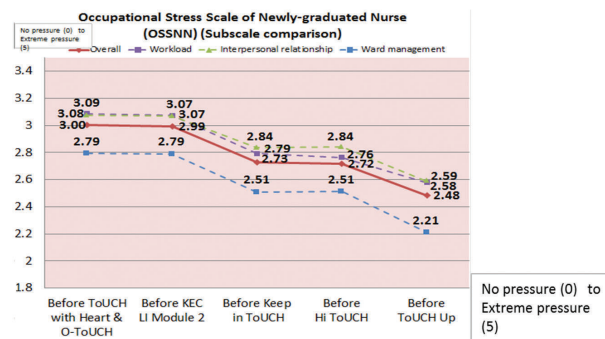


Figure 3. Mean score of self-perceived occupational stress and its subscales along with programme

The overall mean OSSNN was significant improvement [$F(4, 471) = 8.5, p < .0001$]. Post-hoc analysis showed a significant decrease in mean values of the parameter in workload (28.1%, $p = .005$) before “Keep in ToUCH” following “KEC Level I module 2 programmes” (see Figure 3). Participants found significant improvement in ward management before “KEC level I module 2 programmes” following “ToUCH with Heart” & “O-ToUCH” (28.48%, $p = .023$).

Using the measuring tool of the general self-efficacy scale (GSES), it was found that new graduates had a significant improvement in goal-setting, effort investment, persistence when encountering barriers and recovery from setbacks [$F(3, 371) = 7.77, p < .0001$] (see Figure 4).

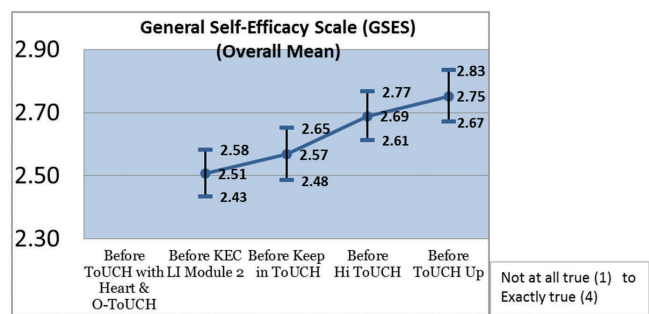


Figure 4. Mean score of the general self-efficacy scale (GSES) along with programme

Table 2. Variables selected from Type III modeling (OSSNN)

Stage	Before ToUCH with Heart & O-ToUCH		Before KEC Level I module 2		Before Keep in ToUCH		Before Hi-ToUCH		Before ToUCH-up	
	IL χ^2 (95% CI)	P	IL χ^2 (95% CI)	P	IL χ^2 (95% CI)	P	IL χ^2 (95% CI)	P	IL χ^2 (95% CI)	P
Department	59.175	.000	5.811	.759	15.551	.049	18.316	.032	7.636	.470
Gender	0.025	.874	0.466	.495	0.671	.413	0.741	.389	2.019	.155
Education	12.468	.002	26.106	.000	2.878	.237	4.079	.130	4.907	.086
Graduate	8.484	.205	100.396	.000	27.938	.000	58.254	.000	54.260	.000
Age	0.134	.715	1.325	.250	0.121	.728	0.791	.374	16.557	.000

Note. OSSNN, Occupational Stress Scale of Newly-graduated Nurses

In the type III model for covariate selection, department, gender, education, graduated institute, and age were identified as significant covariates to be included for the interaction effect of the different measuring points under OSSNN, CCQ and GSES. For OSSNN, there was significant difference of occupational stress level perceived by respondents cross different departments before “ToUCH with Heart & O-ToUCH”, before “Keep in ToUCH” and before “ToUCH -Up” (see Table 2). In addition, there was significant difference of occupa-

tional stress level perceived by respondents who graduated from different institutes before “KEC Level I module 2 programmes”, before “Keep in ToUCH”, before “Hi-ToUCH” and before “ToUCH-up”.

For CCQ, respondents perceived more competent in relation to their working locations and their graduated institutes giving significant influence on different stages before “ToUCH with Heart & O-ToUCH”, before “Keep in ToUCH”, before “Hi-ToUCH” and before “ToUCH-up” (see Table 3).

Table 3. Variables selected from Type III modeling (CCQ)

Stage	Before ToUCH with Heart & O-ToUCH		Before KEC Level I module 2		Before Keep in ToUCH		Before Hi-ToUCH		Before ToUCH-up	
	IL χ^2 (95% CI)	P	IL χ^2 (95% CI)	P	IL χ^2 (95% CI)	P	IL χ^2 (95% CI)	P	IL χ^2 (95% CI)	P
Department	68.92	.000	5.57	.783	33.30	.000	83.39	.000	188.81	.000
Gender	0.059	.808	0.003	.959	0.20	.66	0.57	.45	0.25	.615
Education	7.96	.019	2.01	.366	13.92	.001	0.31	.86	6.66	.036
Graduate	16.28	.012	136.26	.000	13.34	.038	21.99	.001	135.52	.000
Age	0.03	.870	0.40	.528	3.372	.066	0.19	.67	5.82	.016

Note. OSSNN, Occupational Stress Scale of Newly-graduated Nurses

For GSES, the working location was a vital factor to influence respondents' self-efficacy before "KEC Level I module

programmes", before "Keep in ToUCH", and before "Hi-ToUCH" (see Table 4).

Table 4. Variables selected from Type III modeling (GSES)

Stage	Before ToUCH with Heart & O-ToUCH		Before KEC Level I module 2		Before Keep in ToUCH		Before Hi-ToUCH		Before ToUCH-up	
	IL χ^2 (95% CI)	P	IL χ^2 (95% CI)	P	IL χ^2 (95% CI)	P	IL χ^2 (95% CI)	P	IL χ^2 (95% CI)	P
Department	NA	NA	42.22	.000	17.88	.022	44.08	.000	11.23	.189
Gender	NA	NA	0.97	.326	0.07	.799	7.43	.006	3.68	.055
Education	NA	NA	1.76	.416	2.13	.344	0.26	.878	4.44	.109
Graduate	NA	NA	8.92	.178	5.30	.505	25.43	.000	10.69	.099
Age	NA	NA	0.57	.450	2.32	.128	3.62	.057	4.48	.034

Note. GSES, General Self-Efficacy Scale.

3.1 Comparison of resignation rate of preceptees 2013 and 2014 entry

When comparing the 2013 preceptee's resignation rate, the 2014 preceptee's resignation rate has prominently proved the ToUCH program was more effective to increase retention. An exit interview which is commonly conducted with an individual who is separating from an organization was undertaken.^[20]

It was found that the rate of resignation due to work stress was sharply decreasing from 5 to 1 out of 85 and 101 preceptees 2013 and 2014 respectively (see Figure 5 & Table 5).

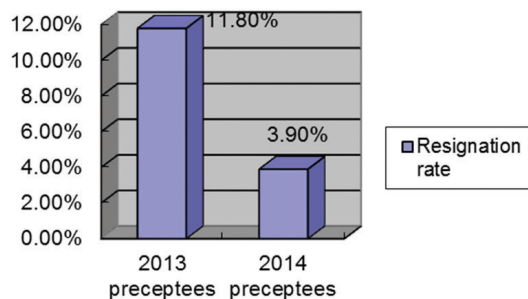


Figure 5. Comparison of the resignation rate of preceptees 2013 and 2014 entry

Table 5. Reasons for resignation of preceptees 2013 and 2014 entry (N, number)

2013 preceptees		2014 preceptees	
Reason	N	Reason	N
Personal issues	4	Personal issues	4
Work stress	5	Applied another job, not related to nursing	1
Poor Performance	1	Overseas study, plan for immigration	1
--	--	Can't adapt the stressful working environment compared with Canada	1

3.2 Self-perception of preceptees 2014 during 1-year ToUCH program in focus group

During the first month of their employment, new graduates claimed they felt anxious, confused, sad, and angry. They were anxious to face sudden changes in patient's condition due to difficulty in handling, and to present patient's profile during duty handover due to difficulty in organizing. They were also worried of missing work and being talked by other nurses behind their backs. They felt frustrated when not being able to meet the standard as expected by other senior nurses. Indeed, due to a totally different learning and working environment, they require time to practice and con-

solidate what they have learnt from institutes. Furthermore, the practices they experienced in clinical settings are quite different from what they had learnt before. They struggled with inconsistent methods to provide appropriate care to patients, in turn, difficulty in making appropriate decision. Indeed, nurses nowadays not only need to provide care but also manage complex and large portion of administration work. Therefore, they also found difficulty in prioritizing different tasks.

In view of these, the informants hoped that NSD would provide more supports including staff, knowledge, skills, and facilitating tool. The ratio of clinical teacher to preceptees was indeed 1:16 that was far enough to provide adequate support to them. Inadequate practical knowledge was secondary to low confidence and poor working performance. Some topics such as checking techniques on patient's record, practical skills in terms of scenario-based teaching could enhance their confidence to perform appropriate care. They also requested to have some facilitating tools like checklist to guide their caring process and to share the existing guidelines and protocols.

During the seventh month of their employment, they felt a sense of accomplishment in their work, in turn, less stress and more confidence to speak up. In spite of this, they were still frustrated when being frequently interrupted by senior nurses during duty handover. One of them claimed being labelled as the one who was below standard at the beginning resulting in less trust by senior nurses. At this stage, all of them found less confidence to communicate with particular patients and families with excessive demands. They thought that a peer support group was a good platform to ventilate. Other trainings such as mindset strengthening and communication skills were also requested by the informants.

During the eleventh month of their employment, all of them thought they were busy but happy. It was because they had more confident to handle different levels of clinical scenarios towards staff, patients, family and doctor. As they showed that they have learnt through their studies in practice, it increased their sense of belonging. In spite of it, they requested to strengthen their communication skills especially with how to cope with troubled staff. Counseling and peer support group were valuable to be provided continuously.

4. DISCUSSION

The strength of this research was to study in the area of new graduate transition using a longitudinal study to evaluate the outcomes of the new design of program. This study has shown its effectiveness of the program in reducing the occupational stress, increasing self-competence and strength-

ening self-efficacy significantly throughout their first year of employment. The nursing professional behaviors and the skill competencies of new graduates were found significant improved after completion of "Keep in ToUCH" and "ToUCH with Heart & O-ToUCH" respectively. The workload and ward management perceived by new graduates were found significant betterment after completion of "KEC Level I module 2 programmes" and "ToUCH with Heart & O-ToUCH" respectively. Increased skill competencies were highly associated with improved stress level due to workload, interpersonal relationship and ward management.

Transition from being nursing students to graduated nurses is chaotic, contributing to feelings of isolation and vulnerability.^[21] They stem from poor reality integration, interpersonal relationships, lack of effective mentoring, lack of supervision, and subsequently development of the transitional stress.^[22] This study revealed a positive result to improve new graduates' competencies, occupational stress and self-efficacy throughout the ToUCH program. Psycho-social elements in terms of cognitive-behavioral therapy and mindfulness-based wellness resilience were newly added in the ToUCH program with a prominent effect on the change of self-efficacy. The new graduates were aware of dysfunctional thoughts and cognition by applying basic cognitive therapy techniques to alleviate psychological distress. Moreover, they were told how to increase the awareness on taking better care of themselves and living healthier. As a result, they reported they thought more positively and knew how to encounter great pressure in a new environment. The exploratory learning section designed in "ToUCH with Heart & O-ToUCH", in addition, can facilitate new graduates to feel and think more on the side of patient when providing care. Nurses can experience psychological supports through the ToUCH program.

Besides, one of the characteristics in the ToUCH program is to cultivate a caring environment. Small and Good stated a fundamental program for new graduates to emphasize caring for self and demonstrating loving kindness to others.^[23] It is because nurses take too much time caring for others that they often forget to attend their own needs.^[24] Therefore, the sense of belongings and the primacy of nursing are importantly included in the ToUCH program. Various topics related to the caring domain were designed to let new graduates think about the caring that makes it primary and is a wellspring for nursing. During the reunion day camp, new graduates need to re-explore meaning and purpose of life and reflect systematically one self's past, present and future. In our hospital, the motto is "With Christian Love We Care; With Excellence We serve" whereas our nursing mission is "With Christina Love, we fulfill client's needs by providing holistic care based on evidence". At the beginning of

the ToUCH program, the motto and mission of our hospital and nursing services division was introduced to express our caring and supportive manner.

The informants admitted to increase sense of belonging along with more confident and efficient to practice. A study revealed a statistically significant low inverse relationship between a sense of belonging and perceived stress among undergraduates in their clinical placements.^[25] In fact, sense of belonging requires being adapted in clinical and educational environments, and this is required through the professional journey.^[26] The clinical teachers arranged diverse activities to preceptees in order to increase their sense of belonging.

Limitation

The principal limitation of the presented study was the Hawthorne effect throughout the study. Apart from the ToUCH program, other factors including human issues (*e.g.* ward managers, nursing and nursing supporting staff, *etc.*), the departmental orientation programmes, and the level of the support from preceptors were to influence the findings of this study. In addition, job satisfaction can be accounted for a central determinant of turnover, work performance, and outcome and general well-being of workers; therefore, both organizational psychology and nursing management, work climate, professional commitment and work value orientation are considered as important factors.^[27] In future, further research is required for experimental investigations to clearly

identify the benefits of a transition program compared to the traditional program.

5. CONCLUSION

This one-year ToUCH program provides for new graduates with 3-domains integration (sense of belonging & commitment to good nursing, knowledge and skills, and affective domain) and 6-stage of themes where they can increase confidence in providing patient care, cope with stress more effectively as well as return quickly to state of mind after suffering stress. Based on the findings, increased skill competencies and improved stress level due to workload, interpersonal relationship and ward management suggest that the ToUCH program enriches bonding, promotes sense of belonging and maintains a high retention rate of new graduates. It showed that preceptees' engagement in quality patient care is substantially enhanced.

ACKNOWLEDGEMENTS

We would like to thank the participating preceptees in United Christian Hospital for their contributions to this study. We are especially grateful to hospital senior management, all Department Operations Managers, and Ward Managers for their enthusiastic support.

CONFLICTS OF INTEREST DISCLOSURE

The authors declare that there are no competing interests.

REFERENCES

- [1] Cheng CY, Tsai HM, Chang CH, *et al.* New Graduate Nurses' Clinical Competence, Clinical Stress, and Intention to Leave: A Longitudinal Study in Taiwan. *E-Scientific World Journal*. 2014.
- [2] Peterson J, McGillis HL, O'Brien-Pallas L, *et al.* Job satisfaction and intentions to leave of new nurses. *Journal of Research in Nursing*. 2011; 16(6): 536-548. <http://dx.doi.org/10.1177/1744987111422423>
- [3] Yeh MC, Yu S. Job stress and intention to quit in newly graduated nurses during the first three months of work in Taiwan. *Journal of Clinical Nursing*. 2009; 18(24): 3450-3460. PMID:20487491. <http://dx.doi.org/10.1111/j.1365-2702.2009.02941.x>
- [4] Brewer CS, Kovner CT, Greene W, *et al.* Predictors of actual turnover in a national sample of newly licensed registered nurses employed in hospitals. *Journal of Advanced Nursing*. 2011; 68(3): 521-538. PMID:22092452. <http://dx.doi.org/10.1111/j.1365-2648.2011.05753.x>
- [5] Feng RF, Tsai YF. Socialization of new graduate nurses to practicing nurses. *Journal of Clinical Nursing*. 2012; 21: 2064-2071. PMID:22384849. <http://dx.doi.org/10.1111/j.1365-2702.2011.03992.x>
- [6] Boamah SA, Laschinger H. The influence of areas of work-life fit and work-life interference on burnout and turnover intentions among new graduate nurses. *Journal of Nursing Management*. 2015.
- [7] Pigott H. Facing reality: The transition from student to graduate nurse. *Australian Nursing Journal*. 2011; 8(7): 24-26.
- [8] O'Brien K, Welsh D, Lundrigan E, *et al.* Transitioning to a new nursing home one organization's experience. *The Health Care Manager*. 2013; 32(3): 203-211. PMID:23903936. <http://dx.doi.org/10.1097/HCM.0b013e31829d72eb>
- [9] Fink R, Krugman M, Casey K, *et al.* The graduate nurse experience. Qualitative residency program outcomes. *Journal of Nursing Administration*. 2008; 38(7): 341-348.
- [10] Williams J, Stickley T. Empathy and nurse education. *Nurse Education Today*. 2010; 30: 752-755. PMID:20381220. <http://dx.doi.org/10.1016/j.nedt.2010.01.018>
- [11] Wilford A, Doyle TJ. Integrating simulation training into the nursing curriculum. *British Journal of Nursing*. 2006; 15(11): 604-607. PMID:16835529.
- [12] Roh YS, Lee WS, Chung HS, *et al.* The effects of simulation-based resuscitation training on nurses' self-efficacy and satisfaction. *Nurse Education Today*. 2013; 33(2): 123-128. PMID:22153054. <http://dx.doi.org/10.1016/j.nedt.2011.11.008>
- [13] Guhde J. Nursing Students' Perceptions of the Effect on Critical Thinking, Assessment, and Learner Satisfaction in Simple Versus Complex High-Fidelity Simulation Scenarios. *Journal of Nursing*

- Education. 2011; 50(2); 73-78. PMID:21117535. <http://dx.doi.org/10.3928/01484834-20101130-03>
- [14] Duchscher JB. A process of becoming: The stages of new nursing graduate professional role transition. *The Journal of Continuing Education in Nursing*. 2008; 39(10): 441-450. <http://dx.doi.org/10.3928/00220124-20081001-03>
- [15] Creswell JW, Klassen AC, Plano Clark VL, *et al.* For the Office of Behavioral and Social Sciences Research: Best Practices for Mixed Methods Research in the Health Sciences. 2011. [Cited 2015 Apr 8]. Available from: http://obssr.od.nih.gov/scientific_areas/methodology/mixed_methods_research/introduction.aspx
- [16] Liou SR, Cheng CY. Development and validating the Clinical Competence Questionnaire: A self-assessment instrument for upcoming baccalaureate nursing graduates. *Journal of Nursing Education and Practice*. 2014; 4(2): 56-66. <http://dx.doi.org/10.5430/jnep.v4n2p56>
- [17] Yeh MC, Huang HM. Occupational Stresss Among Newly-Graduated Nurses: An Exploratory Study. *Hung Kuang Journal*. 2007; 50: 1-12. Available from: <http://gas.hk.edu.tw/main/download/journal/50/1.pdf>
- [18] Liang KY, Zeger SL. Longitudinal data analysis using generalized linear models. *Biometrika*. 1986; 73(1): 13-22. <http://dx.doi.org/10.1093/biomet/73.1.13>
- [19] Schwarzer R, Jerusalem M. Generalized Self-Efficacy scale. In: Weinman J, Wright S, Johnston M. Measures in health psychology: A user's portfolio. Causal and control beliefs. Windsor, UK: Nfer-Nelson. 1995: 35-37.
- [20] Webster J, Flint A. Exit interviews to reduce turnover amongst health-care professionals. *Cochrane Database of Systematic Reviews*. 2014; 8.
- [21] Boychuk DJE, Cowin L. Multigenerational nurses in the workplace. *The Journal of Nursing Administration*. 2004; 34(11): 493-501. <http://dx.doi.org/10.1097/00005110-200411000-00005>
- [22] Cowin LS, Hengstberger-Sims C. New graduate nurse self-concept and retention: a longitudinal survey. *International Journal of Nursing studies*. 2006; 43(1):59-70. PMID:15885692. <http://dx.doi.org/10.1016/j.ijnurstu.2005.03.004>
- [23] Small GE, Good P. Preceptorship: enhancing a culture of caring. *Journal for Nurses in Professional Development*. 2013; 29(6): 301-304. PMID:24256930. <http://dx.doi.org/10.1097/NND.000000000000013>
- [24] Watson J. *Nursing: The philosophy and science of caring*. Denver, CO: University of Colorado Press. 2008.
- [25] Grobecker PA. A sense of belonging and perceived stress among baccalaureate nursing students in clinical placements. *Nurse Education Today*. 2016; 36: 178-183. PMID:26471423. <http://dx.doi.org/10.1016/j.nedt.2015.09.015>
- [26] Andrew N, Robb Y, Ferguson D, *et al.* Show us you know us: Using the Senses Framework to support the professional development of undergraduate nursing students. *Nurse Education Practice*. 2011; 11: 356-359. PMID:21458374. <http://dx.doi.org/10.1016/j.nep.r.2011.03.006>
- [27] Caricati L, Sala RL, Marletta G, *et al.* Work climate, work values and professional commitment as predictors of job satisfaction in nurses. *Journal of Nursing Management*. 2014; 22: 984-994. PMID:23890046. <http://dx.doi.org/10.1111/jonm.12079>