Nursing practice environment as perceived by the Malaysian private hospital nurses

Wai Mun Tang, Abdul Rahman Idris

Background: The escalating rate of private hospital nurses leaving their workplace raised serious concern among the stakeholders. Past studies had found that nursing practice environment was the key influence on nurses' leaving intention, but studies examining the quality of nursing practice environment of private hospital settings was scarce and therefore warrant investigation to provide direction for interventions in addressing nursing turnover.

Objectives: To determine nurses' perceptions towards nursing practice environment and whether there is any significant associations with nurses' demographic variables.

Methods: Cross-sectional inferential survey study was conducted at four private hospitals in the Peninsular Malaysia using the Practice Environment Scale of the Nursing Work Index (PES-NWI) and 885 nurses participated in the study.

Results: Nurses rated their practice environment as favourable. However, items stated in "staffing and resource adequacy" subscale warrant serious attention because nurses rated poorly on item related to "enough staff to get the work done" (M = 2.37, SD = .81) and "enough registered nurses to provide quality patient care" (M = 2.41, SD = .82). Furthermore, t-test analyses found that nurses with educational sponsorship bond (p < .001), higher educational qualifications (p < .05), and have been working in the hospital since graduation (p < .001) were more likely to rate their practice environment lower.

Conclusion: Hospital administrators play significant role in sustaining and creating positive nursing practice environment in order to ensure steady supply of nurses to meet the challenging healthcare needs.

IeJSME 2016 10(2): 11-20

Keywords: nursing, practice, working, environment

Introduction

The rapidly ageing population and increasing chronic diseases across many countries in the world have spurred the growing demands on healthcare needs. In Malaysia, the private healthcare sector has also been expanding drastically over the past years to meet the increasing healthcare demand (Ministry of Health Malaysia, 2015).

Numerous private hospitals particularly those located at the urban regions have initiated to sponsor nursing education for school leavers with the hope to sustain steady supply of nursing workforce through enforcing the qualified registered nurses to serve mandatory educational bond which ranged between five and eight years upon completion of their education. However, the global competitiveness and changing environment of the private healthcare industries had influences nurses' intention to leave their workplace and country for brighter career prospects (Jarrar, Rahman & Shamsudin, 2015; Ramoo, Abdullah & Piaw, 2013; Tang & Idris, 2016).

Hence, many private hospital nurses quitted their sponsored hospitals prior or upon completion of their educational bond. Nurses' turnover phenomenon is detrimental for the remaining nurses who were burdened with additional workload and higher role ambiguity which affected their mental health well-being (O'Brien-Pallas, Murphy, Shamian, Li & Hayes, 2010). Moreover, nurses were reported to be less motivated to pursue post-basic or advanced nursing qualifications due to the fear of educational bondage and financial constraints.

Instead, nurses are enthusiastic to explore the "outside world" such as working in another private hospital or country, and taking up different career roles (i.e., product specialist, industrial nurse) once they have completed their educational bond. Furthermore, majority of Malaysian registered nurses opted to work abroad such as Singapore, Saudi Arabia, Dubai and Australia which worsened the Malaysia "brain-drain" situation (Barnett, Namasivayam & Narudin, 2010).

Department of Educational Management, Planning and Policy, Faculty of Education, University of Malaya, Kuala Lumpur, MALAYSIA

Address for Correspondence:

Wai Mun Tang, Department of Educational Management, Planning and Policy, Faculty of Education, University of Malaya, Kuala Lumpur, MALAYSIA
Mailing address: 4-2-11 Block 4, Meadow Park 2, Jalan 1/130, Jalan Klang Lama, 58200, Kuala Lumpur, MALAYSIA
Email: waimun_tang@siswa.um.edu.my

Henceforth, it is a great challenge for the private hospitals to retain the nursing workforce. The high turnover among the senior registered nurses had resulted an imbalance of staff skill mix (the junior registered nurses proportion exceeding senior registered nurses) which may jeopardise the quality and safety of patient care. Consequently, serious organisational efforts and interventions are warranted to retain the existing nursing workforce. Thus, gauging the present nursing practice environment (NPE), improving relevant practice environment areas is timely and could be a solution in addressing the high nurses' turnover phenomenon by providing further direction in retaining the nursing workforce.

Past studies have affirmed that the characteristics of NPE are the key determinants in the outcomes of patients, nurses and healthcare organisations. Repeated studies have attested that favourable NPE improved the outcomes of the nurses and healthcare organisations such as job satisfaction, job-related burnout, morale, and staff turnover (Anzai, Douglas & Bonner, 2014; Heinen et al., 2013; Warshawsky & Havens, 2011). On the other hand, in terms of patients' health outcomes, research evidences highlighted the significance of favourable NPE in reducing the rate of mortality, patients' fall incidences, nosocomial infections and medication errors (Aiken, Smith, & Lake, 1994; Bogaert, Kowalski, Weeks, Heusden, & Clarke, 2014; Kirwan, Matthews & Scott, 2013).

Furthermore, scholars also reported that nurses in specialty units tended to have positive perceptions towards their practice environment compared with those practising in general wards (Choi & Boyle 2014; Shang, Friese, Wu & Aiken; 2013). Besides, private hospital nurses were found to be more positive than public hospital nurses in terms of perceptions towards NPE (Coetzee, Klopper, Ellis & Aiken, 2013).

In this context, Lake (2002) defined NPE as "the organisational characteristics of a work setting that facilitate or constrain professional nursing practice" (p.178). A literature review reported that the 31-item PES-NWI constructed by Lake (2002) was the most commonly applied instrument to appraise NPE of many clinical settings in numerous countries. The PES-NWI suggested that NPE comprised of five subscales: "nurse participation in hospital affairs"; "nursing foundations for quality of care"; "nurse manager ability, leadership, and support"; "staffing and resource adequacy"; and "collegial nurse-physician relations".

A review on past studies conducted using the PES-NWI found that the western nurses (i.e., Europe and United States) were more likely to score highest for "nursing foundations for quality of care" subscale, and followed by "collegial nurse-physician relations" subscale (Choi & Boyle, 2014; Friese, 2012; Havens, Heinen et al., 2013; Kirwan et al., 2013). Contrariwise, few previous studies reported that, nurses scored the highest for "collegial nurse-physician relations" subscale, and followed by "nurse manager ability, leadership and support" subscale (Anzai et al., 2014; Gabriel, Erickson, Moran, Diefendorff & Bromley, 2013; Zhang et al, 2014).

On the other hand, majority of the previous studies revealed that hospital nurses tended to score lowest for "staffing and resource adequacy" followed by "nurse participation in org affairs" subscale (Anzai et al., 2014; Boev, 2012; Gabriel et al., 2013; Kirwan et al., 2013; Lansiquot, Tullai-McGuinness & Madigan, 2012; Zhang et al, 2014).

Nonetheless, contrasting responses were reported among the nurses who worked in the rural hospitals (Havens et al., 2012), and clinical specialty areas such as intensive care units (Ganz & Toren, 2014), ambulatory oncology setting (Friese, 2012), haemodialysis units (Harwood et al., 2007), and mental health (Roche & Duffield, 2010) settings which had scored the lowest for "nurse participation in hospital affairs" subscale. The rationale for lower scores among specialty nurses could

be related to their disappointment that despite being qualified as specialist nurse, they were still not able to gain the autonomy in making decisions for hospital matters.

In Malaysia, there was only one NPE study conducted in the public teaching hospitals using the PES-NWI (Marzuki, Hassan, Wichaikhum & Nantsupawat, 2012). The study revealed that only two subscales: "nursing foundations for quality of care" and "collegial nurse-physician relations" subscales were able to attain mean values of 2.5 and above. Thus, the NPE was classified as mixed practice environment (Marzuki et al., 2012). The remaining subscales: "staffing and resource adequacy", "nurse manager ability, leadership and support of nurses", and "nurse participation in hospital affairs" subscales were perceived as less favourable (Marzuki et al., 2012).

Even though the Malaysian private healthcare sector has been expanding drastically to meet the increasing healthcare demands of the country, the information pertaining to the characteristics of the private hospitals' NPE is extremely scarce. Henceforth, nurses' perceptions of the NPE in the private hospitals need to be investigated to provide accurate future direction for environment improvement and nurses' retention.

Methodology

Research design

The relativist epistemology was used to guide the research process of the study where, relativism believe that knowledge is derived from an "evolved perspective or point of view" (Raskin, 2008, p. 13). Henceforth, a cross-sectional inferential survey study was adopted because the study approach obtained nurses' perceptions towards their NPE at one same time and permits the establishment of any underlying potential relationships, regardless of prior assumptions pertaining to the nature of the relationships (Easterby-Smith, Thorpe & Jackson, 2010). Thus, nurses' perceptions towards NPE was the dependent variable while demographic characteristics were the independent variables of the study.

Population and sampling

The data of the study were collected in four private hospitals situated in the Peninsular Malaysia (i.e., northern, southern, eastern and central regions). Simple random sampling was employed to sample the hospitals according to the regions (i.e., one hospital was sampled from each region). As for nurses' sampling, all the registered nurses (RNs) who were employed as full-time staff in the hospitals were invited to participate in the study. RNs who held managerial position and were on long leave (i.e., study or maternity leave) during the data collection period were excluded from the study. A total of 1290 questionnaires was administered and the overall valid response rate for the study was approximately 68% (n = 885).

Instrument

The instrument of the study was a self-reported questionnaire comprising of two sections. The first section encompassed demographic characteristics such as age, marital status, highest educational attainment, nursing experience and nursing educational sponsorship bond. The second section contained 31 items which was adopted from the PES-NWI (Lake, 2002) to determine nurses' perceptions of NPE. A written permission had been obtained from the author prior to using the scale in the study.

Nurses were requested to indicate their extent of agreement towards the presence of the listed characteristics (i.e., adequate staffing, collegiality between nurses and physicians, opportunity in career development) in their current work place. The respond categories were "1 = strongly disagree", "2 = disagree", "3 = agree" and "4 = strongly agree" (Lake, 2002). Furthermore, the classifications of NPE were as follows: "favourable" when the mean value of a minimum of four

subscales achieved 2.5 and above; “mixed” when the mean value of a minimum of two subscales achieved 2.5 and above; and “unfavourable” when one of the subscales or none achieved the mean value of 2.5 and above (Lake & Friese, 2006).

Validity and reliability of the instrument

Three panel of experts consisting of two chief nursing officers of the private hospitals and a ward manager had confirmed the content validity of the 31-item PES-NWI. Similarly to previous studies conducted in the Asian regions, the experts had recommended on few item modifications to suit the Malaysian nursing context. For example, to replace the phrase “chief nursing executive” to “chief nursing officer/ director of nursing”. Otherwise, all the experts agreed that the items were appropriate to determine the NPE in the Malaysian private hospitals. The criterion validity of PES-NWI was ascertained through the Nursing Work Index-Revised (Aiken & Patrician, 2000), which revealed significant and positive correlation (r = .97, p < .01).

In terms of reliability, the Cronbach’s alpha value for the overall PES-NWI was .90. The Cronbach’s alpha value for the subscales were presented in Table 1 which ranged between .66 and .81. The correlation coefficient in the test-retest was at .93 (p < .01).

Ethical consideration and data collection

Ethical approval of the study was obtained from an institutional research ethics committee. The institutional permissions were also granted by the private hospitals’ chief executive officers. Informed consent was attained prior to data collection and participation in the study was based on voluntarily basis.

Questionnaire, along with study information sheet and envelope were administered to the consented participants. Participants were instructed to respond to the questionnaire anonymously after their working hours and seal their completed questionnaire in the envelope before placing them into the response folder which was available at the nurses’ station of each ward. Alternatively, participants can return directly or mail their completed questionnaire to the researchers. The participants were given a duration of one week to respond the questionnaire. Data of the study was shredded after dissemination of the research results.

Data analysis

Data was entered and analysed using SPSS version 20. Nurses’ demographic characteristics and perceptions of NPE were analysed using the descriptive statistics. The associations and effects of nurses’ demographic characteristics on NPE were analysed using *t*-test and Cohen’s *d*, effect size.

Results

Demographic characteristics

The sample of the study was representative of the Malaysian private sector nursing workforce in which the majority of the participants were female (n = 839, 94.8%), single marital status (n = 512, 57.9%) and still serving their educational sponsorship bond (n = 455, 51.4%). The average age and nursing experience of the participants were 27.90 years old (SD = 5.72) and 5.29 years (SD = 4.81) respectively. In terms of nurses’ credentials, majority had indicated Diploma in Nursing (n = 619, 69.9%) as their highest educational attainment while less than a quarter of the participants had nursing specialty qualifications (n = 213, 24.10%).

Nursing practice environment

The skewness and kurtosis of the data were -.183 and -.283 respectively. The values were within the normal distribution range which was -1.96 to +1.96 (Chua, 2013). Henceforth, the data was distributed normally and thus, appropriate for further inferential parametric statistics analysis.

The overall composite mean score for nurses' perception towards their practice environment was 2.83 (*SD* = .32). The study revealed that all the five subscales' composite mean score were found to be greater than 2.5 which indicated the favourable NPE.

Table 1 : Nurses' perceptions of nursing practice environment sorted by mean, standard deviation and percentage (n = 885)

	Items	Mean	*SD*	Cronbach's alpha
	Overall PES-NWI composite score	**2.83**	**.32**	**.90**
	Subscale 1: Nurse participation in hospital affairs	**2.77**	**.41**	**.81**
23.	Staff nurses are involved in the internal governance of the hospital (e.g., practice and policy committees)	2.81	.66	
6.	Opportunity for staff nurses to participate in policy decisions	2.64	.63	
17.	Opportunities for advancement	2.80	.56	
21.	Administration that listens and responds to employee concerns	2.60	.78	
11.	A chief nursing officer / director of nursing who is highly visible and accessible to staff	2.63	.71	
5.	Career development / clinical ladder opportunity	2.84	.55	
28.	Nursing administrators consult with staff on daily problems and procedures	2.77	.72	
27.	Staff nurses have the opportunity to serve on hospital and nursing committees	3.03	.58	
15.	A chief nursing officer / director of nursing equal in power and authority to other top-level hospital executives	2.76	.61	
	Subscale 2: Nursing Foundations for Quality of Care	**2.99**	**.33**	**.77**
31.	Use of nursing diagnoses	3.10	.60	
22.	An active quality assurance program	2.91	.61	
25.	A preceptor program for newly hired Registered Nurses	3.11	.61	
26.	Nursing care is based on a nursing, rather than a medical model	3.03	.59	
30.	Patient care assignments that foster continuity of care, i.e., the same nurse cares for the patient from one day to the next	2.91	.70	
18.	A clear philosophy of nursing that pervades the patient care environment	2.88	.46	
29.	Written, up-to-date nursing care plans for all patients	3.07	.60	
14.	High standards of nursing care are expected by the administration	3.02	.57	
4.	Active staff development or continuing education programs for nurses	3.02	.47	
19.	Working with nurses who are clinically competent	2.90	.50	
	Subscale 3: Nurse Manager Ability, Leadership, and Support of Nurses	**2.85**	**.45**	**.74**
10.	A nurse sister / manager who is a good manager and leader	2.88	.62	
20.	A ward sister / manager who backs up the nursing staff in decision making, even if the conflict is with a physician	2.88	.73	
7.	Ward sisters / managers use mistakes as learning opportunities, not criticism	2.86	.62	
3.	A ward sister / manager that is supportive of the nurses	2.91	.60	
13.	Praise and recognition for a job well done	2.72	.66	
	Subscale 4: Staffing and Resource Adequacy	**2.56**	**.53**	**.71**
12.	Enough staff to get the work done	2.37	.81	
9.	Enough registered nurses to provide quality patient care	2.41	.82	
1.	Adequate support services allow me to spend time with my patients	2.73	.60	
8.	Enough time and opportunity to discuss patient care problems with other nurses	2.72	.62	

	Items	Mean	*SD*	Cronbach's alpha
	Subscale 5: Collegial Nurse–Physician Relations	**2.80**	**.48**	**.66**
16.	A lot of team work between nurses and physicians	2.75	.64	
2.	Physicians and nurses have good working relationships	2.84	.56	
24.	Collaboration (joint practice) between nurses and physicians	3.02	.47	

Note: Item responses are on a scale of 1 (*strongly disagree*), 2 (*disagree*), 3 (*agree*) and 4 (*strongly agree*). *SD*, standard deviation.

In terms of subscale analyses, "nursing foundations for quality of care" subscale (M = 2.99, *SD* = .33) was rated highest, and followed by "nurse manager ability, leadership, and support of nurses" subscale (M = 2.85, *SD* = .45).

Conversely, "staffing and resource adequacy" subscale (M = 2.56, *SD* = .53) was rated lowest, where items "enough registered nurses to provide quality patient care" (M = 2.41, *SD* = .82) and "enough staff to get the work done" (M = 2.37, *SD* = .81) were rated below the cut-off point of 2.5.

Besides, the participants had rated lower for items on "administration that listens and responds to employee concerns" (M = 2.60, *SD* = .78), "a chief nursing officer/director of nursing who is highly visible and accessible to staff" (M = 2.63, *SD* = .71), and "opportunity for staff nurses to participate in policy decisions" (M = 2.64, *SD* = .63).

Associations of demographic variables on nursing practice environment

In terms of associations of demographic variables on nursing practice environment, t-test analyses found that nurses with educational sponsorship bond (p = .000), higher educational qualifications (p = .015), and have been working in the hospital since graduation (p = .036) had significant associations and small effects (ranged between .19 and .32) on participants' perception towards their practice environment.

Table 2: Associations and effects of demographic characteristics on nursing practice environment (n = 885)

Demographic Characteristics	Nursing Practice Environment					
	n	Mean	*SD*	*t*	*p*	Effect Size, *d*
First employment since qualified as registered nurse				-3.67	.000**	.29
– Yes	688	2.81	.31			
– No	197	2.90	.32			
Educational sponsorship bond				-4.51	.000**	.32
– Yes	455	2.78	.31			
– No	430	2.88	.31			
Highest educational level				2.44	.015*	.19
– Diploma in nursing	619	2.85	.32			
– Higher than diploma in nursing	266	2.79	.30			
Nursing specialty qualification				-2.72	.007*	.25
– Yes	213	2.77	.31			
– No	672	2.85	.32			

*Significant at $p < .05$. **Significant at $p < .001$. *SD*, standard deviation. Effect sizes as defined by Cohen (1988) $.2 \leq d < .5$ small effect; $.5 \leq d < .8$ moderate effect; and $\leq .8$ large effect.

Interestingly, nurses who had been working in the hospital since graduation were found to perceive their practice environment significantly less positive ($p < .05$) across all subscales except for "collegial nurse-physician relations" subscale. On the other hand, the results found that nurses' perceptions towards "nurse participation in hospital affairs" (p = .000), "nurse manager ability, leadership, and support of nurses" (p = .000), and "staffing and resource adequacy" (p = .011), subscales were found to be significant positive if they do not have educational sponsorship bond (as presented in Table 3).

Furthermore, it was also noted that participants who were working in the units of specialty rated significantly positive towards "nursing foundations for quality of care" (p = .013), and "collegial nurse–physician relations" (p = .019) subscales compared with participants who were working in the general adult wards. The nature of task in the specialty units require high level of competence as well as collaborative practice between healthcare providers, thus, it was acceptable that nurses rated positively in this aspects.

Table 3 : Associations and effects of demographic characteristics on the subscales of nursing practice environment (n = 885)

Demographic Characteristics	Nurse participation in hospital affairs				Nursing foundations for quality of care				Nurse manager ability, leadership, and support of nurses				Staffing and resource adequacy				Collegial Nurse-Physician Relations			
	Mean (SD)	t	p	Effect size	Mean (SD)	t	p	Effect size	Mean (SD)	t	p	Effect size	Mean (SD)	t	p	Effect size	Mean (SD)	t	p	Effect size
First employment since qualified as registered nurse		-3.70	.000**	.30		-2.96	.003*	.21		-3.31	.001*	.27		-2.89	.004*	.23		.52	.604	.04
– Yes	2.74 (.40)				2.98 (.32)				2.82 (.45)				2.53 (.53)				2.81 (.46)			
– No	2.86 (.40)				3.05 (.35)				2.94 (.44)				2.65 (.51)				2.79 (.55)			
Educational sponsorship bond		-6.02	.000**	.41		-1.65	.099	.09		-5.14	.000**	.36		-2.55	.011*	.17		-.05	.692	.00
– Yes	2.69 (.41)				2.98 (.32)				2.77 (.45)				2.51 (.53)				2.80 (.47)			
– No	2.85 (.38)				3.01 (.34)				2.93 (.44)				2.60 (.52)				2.80 (.49)			
Highest educational level		2.30	.022*	.18		2.58	.010*	.18		1.99	.046*	.16		.53	.536	.04		1.02	.308	.07
– Nursing diploma	2.79 (.41)				3.01 (.33)				2.87 (.45)				2.56 (.54)				2.81 (.49)			
– Higher than nursing diploma	2.72 (.38)				2.95 (.33)				2.80 (.45)				2.54 (.49)				2.78 (.45)			
Working areas		-1.24	.217	.07		-2.48	.013*	.15		.88	.381	.07		-1.11	.269	.08		-2.34	.019*	.17
– General adult medical surgical wards	2.75 (.40)				2.97 (.32)				2.86 (.42)				2.54 (.54)				2.76 (.46)			
– Units of specialty	2.78 (.41)				3.02 (.33)				2.83 (.48)				2.58 (.51)				2.84 (.49)			

*Significant at $p < .05$. **Significant at $p < .001$. *SD*, standard deviation. Effect sizes as defined by Cohen (1988) $.2 \leq d < .5$ small effect; $.5 \leq d < .8$ moderate effect; and $\leq .8$ large effect.

IeJSME 2016 10(2): 11-20

Discussion and implications

The present study found that the overall PES-NWI composite mean score (*M* = 2.83, *SD* = .32) of the present study was relatively higher than majority of the previous studies which attained mean scores of less than 2.8 (Anzai et al, 2014; Ganz & Toren, 2014; Havens et al, 2012; Marzuki et al, 2012). In comparison with a recent study conducted in among the Malaysian public teaching hospital nurses (Marzuki et al, 2012), the NPE of the present study (i.e., private hospitals) was found to be more favourable than the public teaching hospitals. The finding supported that of a previous study which was conducted in South Africa (Coetzee et al, 2013). The rationale for the positive finding among the private hospitals could be due to the fact that private healthcare organisations were more customer-oriented driven and placed great emphasis in sustaining and enhancing their brand reputation.

On the positive perspective, the present finding found that nurses rated highest for "nursing foundations for quality of care" subscale, which was congruent with past studies (Kirwan et al, 2013; Marzuki et al, 2012; Shang et al, 2013). The positive perceptions among nurses could be related to their strong nursing educational background and the role of the ward managers in supervising the staff in delivering quality nursing care to their patients. Henceforward, on-going collaborative efforts (such as quality assurance activities and continuing professionalism programmes) between the nursing team and hospital administrators are crucial to maintain and improve the quality nursing care provision.

On the other hand, "staffing and resource adequacy" subscale was rated lowest particularly on items which were related to inadequate staffing to complete nursing task (*M* = 2.37, *SD* = .81) and provide quality care (*M* = 2.41, *SD* = .82). The findings concurred with preceding studies which also disclosed nurse staffing as their chief concerns and warrant immediate attention because it may jeopardise the quality of patient care (Anzai et al, 2014; Boev, 2012; Gabriel et al, 2013; Marzuki et al, 2012; Zhang et al, 2014). Furthermore, as revealed in the study, nurses' were found to be lacking in autonomy and their voices were not being taken into consideration for policy refinement and implementation. Henceforth, this could lead to nurses' dissatisfaction and intention to leave.

Likewise, the finding of the present study concurred with previous study where, nurses who were working in the units of specialty tended to score their NPE higher compared with those who were working in the general adult wards (Choi & Boyle 2014; Shang et al, 2013). Nurses' nursing experience and level of education could be the influence of the results where, high proportion of nurses working in the units of specialty have gained some nursing experience and gone through a nursing specialty course (i.e., post basic nursing qualification programme).Thus, the nurses could relate and adapt their practice environment bette, such as being more competent in their nursing practice and collaborate with other healthcare professionals when managing with patient care.

Interestingly, the study found that nurses with educational sponsorship bond tended to perceive their NPE negatively. Nurses with educational sponsorship bond were most likely engaged with the hospital since their training years (if the hospital also operate a nursing college). The long duration of attachment with an organisation may lead to boredom and therefore lack of excitement among the nurses. Henceforth, hospital administrators and ward managers need to implement interventions which may trigger and enrich nurses' experience in the organisation such as ward rotation periodically, engage nurses in working groups for hospital events and staff mobility/ attachment scheme.

Limitations

Cross-sectional approach was deemed as a limitation of the study due to the lack in changes of NPE trend. Therefore longitudinal research approach is

recommended for future studies to gauge and monitor the association links with NPE trend changes. Furthermore, qualitative research approach is an added advantage in gaining in-depth understanding towards the cohort of nurses with educational sponsorship on the reasons for having less positive perceptions towards their NPE.

Conclusion

Favourable NPE is the key determinant in promoting the well-being of nurses and patients. The findings of the study revealed that nurse staffing is the premier concern among the private healthcare organisations. Therefore the findings of the study present an important direction for collaboration between the Malaysia private healthcare organisations and nursing education institutions in kicking off appropriate interventions in retaining nurses which indirectly will ensure a steady supply of qualified nurses to fulfil the challenging healthcare demands.

Conflict of Interest

The authors declare no conflicts of interest.

Acknowledgements

The authors would like to thank the research ethics committee for granting ethical approval of the study. Furthermore, the authors would like to express sincere appreciation to chief executive officers of the private hospitals for permitting the conduct of the study. Last but not least, the authors are thankful to the participants of the study and those who have assisted in the implementation of the research project.

REFERENCES

- Aiken LH, Patrician PA. Measuring organizational traits of hospitals: The Revised Nursing Work Index. Nursing Research 2000; 49(3): 146-53. http://dx.doi.org/10.1097/00006199-200005000-00006
- Aiken LH, Smith HL, Lake ET. Lower Medicare mortality among a set of hospitals known for good nursing care. Medical Care 1994; 32(8): 771-87.
- Anzai E, Douglas C, Bonner A. Nursing practice environment, quality of care, and morale of hospital nurses in Japan. Nursing & Health Sciences 2014; 16(2): 171-8. http://dx.doi.org/10.1111/nhs.12081
- Barnett T, Namasivayam P, Narudin DA. Critical review of the nursing shortage in Malaysia. International Nursing Review 2010; 57(1): 32–9. http://dx.doi.org/10.1111/j.1466-7657.2009.00784.x
- Boev C. The relationship between nurses' perception of work environment and patient satisfaction in adult critical care. Journal of Nursing Scholarship 2012; 44(4): 368-75. http://dx.doi.org/10.1111/j.1547-5069.2012.01466.x
- Choi J, Boyle DK. Differences in nursing practice environment among US acute care unit types: A descriptive study. International Journal of Nursing Studies 2014; 51(11): 1441-9. http://dx.doi.org/10.1016/j.ijnurstu.2014.03.001
- Coetzee SK, Klopper HC, Ellis SM, Aiken LH. A tale of two systems—Nurses practice environment, wellbeing, perceived quality of care and patient safety in private and public hospitals in South Africa: A questionnaire survey. International Journal of Nursing Studies 2013; 50(2): 162-73. http://dx.doi.org/10.1016/j.ijnurstu.2012.11.002
- Cohen J. Statistical power analysis for the behavioral sciences. 2nd edn. United States of America: Lawrence Earlbaum Associates, 1988.
- Chua YP. Mastering Research statistics. Kuala Lumpur: McGraw-Hill, 2013.
- Easterby-Smith M, Thorpe R, Jackson P. Management research. 3rd edn. London: Sage Publications, 2010.
- Friese CR. Practice environments of nurses employed in ambulatory oncology settings: measure refinement. Oncology Nursing Forum 2012; 39(2): 166-72. http://dx.doi.org/10.1188/12.ONF.166-172
- Gabriel AS, Erickson RJ, Moran CM, Diefendorff JM, Bromley GE. A multilevel analysis of the effects of the Practice Environment Scale of the Nursing Work Index on nurse outcomes. Research in Nursing & Health 2013; 36(6): 567-81. http://dx.doi.org/1002/nur.21562
- Ganz FD, Toren O. Israeli nurse practice environment characteristics, retention, and job satisfaction. Israel Journal of Health Policy Research 2014; 3(1): 1-8. http://dx.doi.org/10.1186/2045-4015-3-7
- Harwood L, Ridley J, Lawrence-Murphy JA, Spence-Laschinger HK, White S, Bevan J, O Brien K. Nurses' perceptions of the impact of a renal nursing professional practice model on nursing outcomes, characteristics of practice environments and empowerment-Part I. The CANNT Journal 2007; 17(1): 22-9.
- Havens DS, Warshawsky N, Vasey J. The nursing practice environment in rural hospitals: Practice environment scale of the nursing work index assessment. Journal of Nursing Administration 2012; 42(11): 519-25. http://dx.doi.org/10.1097/NNA.0b013e3182714506
- Heinen MM, van Achterberg T, Schwendimann R, Zander B, Matthews A, Kózka M, ... Schoonhoven L. Nurses' intention to leave their profession: A cross sectional observational study in 10 European countries. International Journal of Nursing Studies 2013; 50(2): 174-84. http://dx.doi.org/10.1016/j.ijnurstu.2012.09.019
- Kirwan M, Matthews A, Scott, PA. The impact of the work environment of nurses on patient safety outcomes: a multi-level modelling approach. International Journal of Nursing Studies 2013; 50(2): 253-63. http://dx.doi.org/10.1016/j.ijnurstu.2012.08.020
- Lake ET. Development of the practice environment scale of the nursing work index. Research in Nursing & Health 2002; 25(3): 176-88. http://dx.doi.org/10.1002/nur.10032

- Lake ET, Friese CR. Variations in nursing practice environments: Relation to staffing and hospital characteristics. Nursing Research 2006; 55(1): 1-9. http://dx.doi.org/10.1097/00006199-200601000-00001
- Lansiquot BA, Tullai-McGuinness S, Madigan E. Turnover intention among hospital-based registered nurses in the eastern Caribbean. Journal of Nursing Scholarship 2012; 44(2): 187-93. http://dx.doi.org/10.1111/j.1547-5069.2012.01441.x
- Liu K, You LM, Chen SX, Hao YT, Zhu XW, Zhang LF, Aiken LH. The relationship between hospital work environment and nurse outcomes in Guangdong, China: A nurse questionnaire survey. Journal of Clinical Nursing 2012; 21(9-10): 1476-85. http://dx.doi.org/10.1111/j.1365-2702.2011.03991.x
- O'Brien-Pallas L, Murphy GT, Shamian J, Li X, Hayes LJ. Impact and determinants of nurse turnover: a pan-Canadian study. Journal of Nursing Management 2010; 18(8): 1073-86. http://dx.doi.org/10.1111/j.1365-2834.2010.01167.x
- Marzuki MA, Hassan H, Wichaikhum O, Nantsupawat R. Continuing nursing education: Best practice initiative in nursing practice environment. Procedia-Social and Behavioral Sciences 2012; 60: 450-5. http://dx.doi.org/10.1016/j.sbspro.2012.09.405
- Ministry of Health Malaysia. National Healthcare Establishment and Workforce Statistics (Hospital) 2012-2013. Kuala Lumpur, Malaysia: The National Healthcare Statistics Initiative (NHSI) 2015. http://www.crc.gov.my/nhsi/ Accessed: 15 June 2016.
- Rahman HA, Shamsudin AS. The impact of patient to nurse ratio on quality of care and patient safety in the medical and surgical wards in Malaysian private hospitals: A cross-sectional study. Asian Social Science 2015; 11(9): 326-32. http://dx.doi.org/10.5539/ass.v11n9p326
- Ramoo V, Abdullah KL, Piaw CY. The relationship between job satisfaction and intention to leave current employment among registered nurses in a teaching hospital. Journal of Clinical Nursing 2013; 22(21-22): 3141-52. http://dx.doi.org/10.1111/jocn.12260
- Raskin J. The evolution of constructivism. Journal of Constructivist Psychology 2008; 21(1): 1-24. http://dx.doi.org/10.1080/10720530701734331
- Roche MA, Duffield CMA. Comparison of the nursing practice environment in mental health and medical-surgical settings. Journal of Nursing Scholarship 2010; 42(2): 195-206. http://dx.doi.org/10.1111/j.1547-5069.2010.01348.x
- Shang DJ, Friese DCR, Wu ME, Aiken LH. Nursing practice environment and outcomes for oncology nursing. Cancer Nursing 2013; 36(3): 206-12. http://dx.doi.org/10.1097/NCC.0b013e31825e4293
- Tang WM, Idris AR. Leaving intention and exit destinations among the Malaysian private hospital nurses. International E-Journal of Science, Medicine and Education (IeJSME) 2016; 10(1): 24-35.
- Van Bogaert P, Kowalski C, Weeks SM, Clarke SP. The relationship between nurse practice environment, nurse work characteristics, burnout and job outcome and quality of nursing care: A cross-sectional survey. International Journal of Nursing Studies 2013; 50(12): 1667-77. http://dx.doi.org/10.1016/j.ijnurstu.2013.05.010
- Warshawsky NE, Havens DS. Global use of the practice environment scale of the nursing work index. Nursing Research 2011; 60(1): 1-15. http://dx.doi.org/10.1097/NNR.0b013e3181ffa79c
- Zhang LF, You LM, Liu K, Zheng J, Fang JB, Lu MM, ... Wu X. The association of Chinese hospital work environment with nurse burnout, job satisfaction, and intention to leave. Nursing Outlook 2014; 62(2): 128-37. http://dx.doi.org/10.1016/j.outlook.2013.10.010