

Factors Affecting Participation of Registered Nurses in Continuing Nursing Education among Selected Private Hospital in Penang, Malaysia

Yee Bit-Lian*, Tan Woei-Ling, Saranyah Nachiappen, Nur Farahin Mohamed Jajali

International Medical University, School of Health Sciences, Bukit Jalil, 57000 Kuala Lumpur, Malaysia

*Corresponding Author's Email: yeebitlian5448@gmail.com

ABSTRACT

Introduction: The rapidly changing health care needs of clients, the changing roles of nurses, and the rapid technological advancement make Continuous Nursing Education (CNE) necessary for nurses to maintain up-to-date nursing knowledge and skills to face the ever-increasing societal demands. **Objective:** The objective of this study is to identify factors that motivate and deter CNE participation of nurses. **Methods:** A cross-sectional descriptive study design was conducted in a selected private hospital, Penang, Malaysia. 100 respondents who fulfil the inclusion criteria participated in this study. This study utilised a self-administered questionnaire related to factors that motivate and deter nurses participation in CNE. **Results:** The findings of this study showed that both factors that motivate and hinder the CNE participation among the registered nurses were above mean of 3.0 out of 5 scores. Highest scores for motivation factors including *Renew my license to practice, Improve my communications skills, Adhere to hospital policy, Be more critical in providing nursing care, Improve my research skills, and Improve my management skills*. All factors that deter shown mean of more than 3.0. No significant difference between various categories of the department on factors that influence CNE participation among registered nurses at the selected private hospital in Penang; $F(6, 81) = 0.558, p = 0.763 > 0.05$. **Conclusion:** This study indicated a need to develop an effective strategy for nurses to participate in the future CNE.

Keywords: *Continuous Nursing Education; Continuous Professional Development; In-Service Training; Influencing Factors; Lifelong Learning; Registered Nurses*

INTRODUCTION

Continuing nursing education (CNE) is part of lifelong learning that begins after formal education ends (Muliira *et al.*, 2012) and is significant to ensure safe and high-quality nursing practice and to improve quality of care (Salmond & Echevarria, 2017). Nurses are accountable to keep professional competence throughout their nursing profession. The importance of continuous education has been increasingly debated in nursing literature for the past decades. The rapidly changing health care needs of clients, the changing roles of nurses, and rapid technological advancement make CNE necessary for nurses to maintain up-to-date nursing knowledge and skills to face the ever-increasing societal demands (Sajjadnia *et al.*, 2015; Salmond & Echevarria, 2017) CNE plays its roles and functions where

knowledgeable nurses can show their competency and effectiveness as a nurse. By attending regular CNE, studies shown that nurses make minimum errors and provide better patient care (Marzuki *et al.*, 2012; Schweitzer & Krassa, 2010).

In Malaysia, the Nursing and Midwifery Board has long recognized the importance of continuing nursing education. Nurses have been required to participate in a minimum number of CNE hours each year since 2008. According to the Guidelines for Continuous Professional Development (CPD) Program for Malaysia nurses, a minimum CPD Points achievement is required every year (Ministry of Health Malaysia, 2008). The CPD points are varied depending on the nurses' position, such as 35 to 40 points per year (Tutor, Matron and Manager/Sister), 25 to 30 points per year

Received July 10, 2022; Received in revised form July 13, 2022; Accepted September 17, 2022

(staff nurse), and 15 to 20 points per year (assistant nurse). However, with the growing evidence of the need to link CPD with organisational or institutional goals, there is no upper limit to acquiring points for CPD. Malaysian registered nurses must have sufficient CPD points in a year to renew their Annual Practicing Certificate (APC).

In the selected private hospital, the education unit works closely with the nursing department, human resources department, quality assurance department, and other departments to improve nurses' quality by providing more CNE programmes and ensuring all staff have the opportunity to get updated information from the talks given by nurse educators, nurses, or vendors. CNE can increase nursing knowledge and increase patient satisfaction. Every nurse is required to keep up with current trends and advancement of the nursing profession (Javed & Khan, 2016) and provide proof of continuing professional development (CPD) registration every year. Nurses who fail to meet the required standards will have their registration lapse and cannot legally work in the country (Ministry of Health Malaysia, 2008; Javed & Khan, 2016). There are a few types of CNE sessions, such as workshops, forums, seminars, lectures, or even medication quizzes (Bednarz *et al.*, 2010). Sadeghniaat-Haghighi and Yazdi (2015) also alluded to the barriers of time constraint, fatigue, difficulty with reflection, lack of motivation, and feeling disappointed by the working environment as one of the reasons. If the problem is persistent, it will be crucial to ensure nurses can deliver the best possible care to their patients. Aforementioned, the Nurse Managers and Nurse Quality Development (NQD) of this selected private hospital also received feedback that those registered nurses showed a lack of initiative or interest while participating in CNE sessions.

In the selected private hospital, a total of 41 sessions of CNE were conducted in the year 2019, and an average of 27 staff members attended each session of CNE. In 2019, CNE sessions were conducted every 2 weeks as scheduled. A total of 43 CNE sessions were conducted, with 26 sessions as scheduled additional sessions, and an average of 31 staff members attended per session. However, the researcher found that registered nurses who attended these CNE sessions estimated less than 70% due to a lot of internal workshops, seminars, and housekeeping. Basic life support is conducted for nurses nowadays to ensure they achieve the mandated CPD point easily, yet the nurses' supervisor had also feedback that registered nurses showed a lack of initiative when participating in CNE sessions. However, due to the pandemic last year, there were only a few CNE sessions held with limited staff.

The selected private hospital collaborates with a Malaysian Society for Quality in Health (MSQH) accredited hospital, hence, CNE sessions play a major role in educating nurses. According to the Ministry of Health (MOH), it is vital to have a lifelong learning mindset by attending the CNE. Indirectly, this will make the nurses better decision-makers in clinical areas to meet the patients' needs and improve health outcomes. Nurses with broader knowledge and skills will develop better personal qualities. The attributes are necessary for the nurses to execute their professional duties. To illustrate, this includes the acquisition of new responsibilities and not just for the sake of CPD points but to equip the nurses with relevant and appropriate competencies, knowledge and skills (Ministry of Health Malaysia, 2008). A few researchers focused on CNE in public hospitals in Malaysia. Nevertheless, there is a paucity of data on private hospitals in Penang, Malaysia. This research aims to (1) investigate the factors that motivate and hinder registered nurses to participate in the CNE; (2) if there is any association between demographic variables and the factors influencing participation in the CNE.

METHODOLOGY

A cross-sectional descriptive study design was employed to determine the factors affecting the participation in CNE among the registered nurses in a selected private hospital in Penang, Malaysia. We included the registered nurses who have been confirmed in the service, which is more than six months in the selected hospital and are willing to participate in the study. Exclusion criteria were those not keen to sign consent forms, below six months of service, those away for study, and those in managerial positions.

This research was conducted in the selected private hospital in Penang, which consists of 273 beds. The private hospital was established in the 1970s and it is one of the leading private medical centres in Penang and is also accredited by the Malaysian Society for Quality and Health (MSQH). The target population was all of the registered nurses, including the Medical Department, Surgical Department, Pediatric Department, Obstetrics & Gynecology department, and Multi-disciplinary department with a

minimum of six months of experience. However, due to this pandemic, we were only able to collect a total of 100 samples for the data collection as a few of the wards were prohibited from participating because they were being assigned as the frontliners for the COVID-19 pandemic.

The questionnaire consists of three sections. The request for permission to use the questionnaire has been approved by (Chong *et al.*, 2011) Section A consists of demographic data including age, gender, marital status, years of service, present working unit, and highest level of nursing education. Section B comprises 15 items related to factors that motivate CNE participation. Section C consists of 11 items related to factors that deter CNE participation among registered nurses. The questionnaire has a 5-point Likert scale with 1 = strongly disagree to 5= strongly agree.

Prior to the main study, a pilot study was conducted. Those registered nurses in the pilot study were excluded in our main data collection. Prior to the pilot study, consent was obtained from the participants. Our reliability was determined by using Cronbach alpha value 0.70 and above as the acceptance value (Polit & Beck, 2014). During the pilot study, we also tested the clarity of the questions given and the time required for each participant to complete the questionnaire. The content validity was determined by a three-member panel of experts, including the Chief of Nursing Officer, Matron, and one of the ward managers before conducting the study.

The questionnaire was coded and entered using IBM SPSS Statistics version 26.0. Descriptive statistics using frequency, mean, standard deviation, and percentage were used to analyse the demographic and other research variables. Tables were used to illustrate the findings of the study. One-way ANOVA was used to examine the difference between various categories of the department on the factors that influence CNE participation among the registered nurses.

Ethical Approval

The following proposal, Project ID No: BN I/2020(PR-36), has been approved by the 206th IMU Joint-Committee on Research and Ethics on 24 September 2020.

RESULTS

Of the 100 questionnaires distributed, 88 were collected and valid for data analysis, which represents 88% of the returned rate. The results in table 1 indicated that the majority of the participants were 51.1% (n= 45) es, mean age was approximately 38.78 years. The majority of the research participants 75.0% (n= 66) indicated being married. The average years of experience among the participants of the study was found to be 10.59 years, with the most experienced person having 20 years and the least experienced having only one year. The majority of them were from paediatric and adult surgical wards, with 20% and 19.3%, respectively. The majority of the study participants being 29.5% (n= 26) stated that Advanced Diploma/Post Basic was their level for professional education.

Table 1: Demographic Data of the Participants (n= 88)

Variables		n (%)
Gender	Male	43 (48.9)
	Female	45 (51.1)
Age (years)		38.78 (10.02) ^a
Marital status	Single	14 (15.9)
	Married	66 (75.0)
	Divorced	4 (4.5)
	Widow/widower	4 (4.5)
Working Experiences (years)		10.59 (5.66) ^a
Department	Surgical	17 (19.3)
	Medical	8 (9.1)
	Multi-disciplinary	13 (14.8)
	Obstetrics & Gynecology	6 (6.8)
	ICU/ High Dependency Unit	9 (10.2)
	Pediatric	18 (20.5)
Highest Professional Education		
Post-Basic	Diploma in Nursing	21 (23.9)
	Advanced Diploma/	26 (29.5)
	Bachelor's Degree	20 (22.7)
	Postgraduate Degree	21 (23.9)

^amean (SD)

In the dimension of factors that motivate CNE participation among registered nurses, the results obtained in table 2 indicates that the participants agreed with the various factors motivate them in CNE participation. They attributed to the means above 3.0 each item.

Table 2: Factors that Motivate CNE Participation among Registered Nurses (n=88)

Statements	N (%)					Mean (SD)
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
Improve my knowledge.	9(10.2)	6 (6.8)	7(8.0)	31(35.2)	35(39.8)	3.87(1.294)
Improve my skills in clinical practice.	7(8.0)	8 (9.1)	7(8.0)	40(45.5)	26(29.5)	3.80(1.195)
Give quality care to patient.	7 (8.0)	9(10.2)	6(6.8)	41(46.6)	25(28.4)	3.77(1.201)
Obtain knowledge to achieve professional status.	11(12.5)	5 (5.7)	6(6.8)	35(39.8)	31(35.2)	3.80(1.323)
Renew my license to practice.	4 (4.5)	10(11.4)	8(9.1)	31(35.2)	35(39.8)	3.94(1.168)
Gain more paper Qualifications.	6(6.8)	10(11.4)	6(6.8)	37(42.0)	29(33.0)	3.83(1.206)
Improve my communications skills.	9(10.2)	5 (5.7)	8(9.1)	27(30.7)	39(44.3)	3.93(1.302)
Fulfil requirement for promotions.	10(11.4)	5 (5.7)	7(8.0)	41(46.6)	25(28.4)	3.75(1.253)
Adhere to hospital policy.	8 (9.1)	4 (4.5)	10(11.4)	30(34.1)	36(40.9)	3.93(1.239)
Increase my competency.	11(12.5)	7 (8.0)	4(4.5)	36(40.9)	30(34.1)	3.76(1.339)
Be more critical in providing nursing care.	7 (8.0)	3 (3.4)	12(13.6)	35(39.8)	31(35.2)	3.91(1.161)
Improve my decision making.	8 (9.1)	7 (8.0)	7(8.0)	33(37.5)	33(37.5)	3.86(1.261)
Improve my research Skills.	9(10.2)	9(10.2)	4(4.5)	26(29.5)	40(45.5)	3.90(1.356)
Improve my teaching skills.	9(10.2)	11(12.5)	2(2.3)	36(40.9)	30(34.1)	3.76(1.322)
Improve my management skills.	5 (5.7)	7 (8.0)	10(11.4)	29(33.0)	37(42.0)	3.98(1.174)

Factors that deter CNE participation of registered nurses at the selected private hospitals in Penang, Malaysia is illustrated in the table 3. All statements were found to be above 3.0.

Table 3: Factors that Deter CNE Participation of Registered Nurses (n=88)

Statements	N (%)					Mean (SD)
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
Lack of supervisor support.	6(6.8)	7 (8.0)	7(8.0)	32(36.4)	36(40.9)	3.97(1.198)
Lack of peer support.	5 (5.7)	13(14.8)	2 (2.3)	34(38.6)	34(38.6)	3.90(1.232)
Lack of organization support.	5 (5.7)	6 (6.8)	9(10.2)	34(38.6)	34(38.6)	3.98(1.134)
Lack of family support	2 (2.3)	9(10.2)	9(10.2)	37(42.0)	31(35.2)	3.98(1.039)
Work commitments.	4 (4.5)	11(12.5)	5 (5.7)	33(37.5)	35(39.8)	3.95(1.174)
Domestic responsibilities	9(10.2)	7 (8.0)	4 (4.5)	43(48.9)	25(28.4)	3.77(1.239)
Time constraints.	5 (5.7)	5 (5.7)	10(11.4)	34(38.6)	34(38.6)	3.99(1.119)
Scheduling of CNE activities inconvenience.	4 (4.5)	8 (9.1)	8 (9.1)	40(45.5)	28(31.8)	3.91(1.090)
Lack of information about activities/ programme	10(11.4)	4 (4.5)	6 (6.8)	33(37.5)	35(39.8)	3.90(1.296)
Lack of access to relevant CNE courses	5 (5.7)	7 (8.0)	8 (9.1)	31(35.2)	37(42.0)	4.00(1.165)
Negative experiences with previous CNE programme.	6 (6.8)	6 (6.8)	8 (9.1)	31(35.2)	37(42.0)	3.99(1.189)

One-way ANOVA for the difference in Factors that influence CNE Participation among registered Nurses at a private hospital in Penang across department

The following Table 4 is a representation for the one-way ANOVA results for the factors that motivate CNE participation among registered nurses at the selected private hospitals in Penang across the various departments. The results indicated that no significant difference between various categories of the department on factors that influence CNE participation among registered nurses at the selected private hospital in Penang; $F(6, 81) = 0.558, p = 0.763 > 0.05$.

Table 4: Summary of One-way ANOVA

	Sum of squares	df	Mean square	F	Sig.
Between groups	4.269	6	0.712	0.558	0.763
Within groups	103.350	81	1.276		
Total	107.619	87			

DISCUSSION

The demographic findings for the present study were as expected, with one exception: the gender make-up of the study cohort. Across the world, including in western countries where gender equality has advanced considerably, nursing remains an overwhelmingly female profession (Boniol *et al.*, 2019; OECD, 2020). The percentage of nurses that are female is over 80% and has remained so since the dawn of the profession (OECD, 2020). The same is also true for Malaysia, where over 80% of all nurses are female (Wan Chik *et al.*, 2012). The sample for the study is thus unrepresentative in this regard, and this can be put down to the sampling method used. The distribution of the nurses among the hospital departments was largely even, with the three best-represented departments being the surgical ward, the emergency department, and the paediatrics department (with about a fifth of participants coming from each of the three departments).

The first objective sought to show the factors that increase the willingness of nurses to participate in CNE. The results show that, for all the factors, at least two-thirds of participants either agreed or strongly agreed on their importance to their desire to take part in CNE. The desire to improve knowledge and skills, raise the professional profile, keep up with professional requirements to practice, and gain promotions can be viewed as key factors for nurses' desire to take part in CNE in Penang, Malaysia.

The second objective of this study was to highlight the key deterrents that prevent nurses in the private sector in Penang from taking part in CNE. Once again, the responses show that a vast majority of participants agreed or strongly agreed with the statements that the researchers posed, indicating that the correct factors were selected by the researcher. For all the questions asked, more than two-thirds of participants either agreed or strongly agreed with the statements posed. Based on the high level of agreement, the critical factors that deter CNE participation among private sector nurses can be summarised as: lack of support from management; lack of support from families; work-life balance challenges; poor availability of information on CNE programs; and poor experience in the CNE programs.

From the findings of the study, it is clear that the desire to improve knowledge and skills, raise the

professional profile, keep up with professional requirements to practice, and gain promotions can be viewed as key factors for nurses' desire to take part in CNE in Penang, Malaysia. The descriptive statistics findings indicate that the responses to these factors were largely similar, with about 66% of the respondents either agreeing or strongly agreeing with all the questions related to these factors. The results are consistent with the few studies that found an important reason for nurses to pursue CNE is to ensure they retain professional certification, advance in their career, and improve knowledge (Ni *et al.*, 2014; Selvaraj & Jayaseelan, 2019). The desire to improve practical skills and offer patients the best available care was also found to be an important factor in the desire to pursue CNE (Ni *et al.*, 2014). Generally, nurses are more engaged in CNE participation if CNE credits are awarded (Wang *et al.*, 2018). A study showed that the incidence of patient falls was significantly associated with nurses with active CNE participation (Marzuki *et al.*, 2012).

The second objective of this research study was to conceptualise the factors that deter nurses from taking part in CNE. This study identified lack of support from management, lack of support from families, work-life balance challenges, poor availability of information on CNE programs, and poor experiences in the CNE programmes as the key reasons why private-sector nurses are unable to pursue CNE in Penang, Malaysia. The findings for this research question are also as expected and consistent with the findings of other studies. Few scholars identified work schedule, cost, and time constraints as key factors deterring nurses from participating in CNE (Aboshaiqah *et al.*, 2012; Al-Majid *et al.*, 2012; Channa, 2013; Shahhosseini & Hamzehgardeshi, 2015). Others in their elaborate studies reported that hectic work schedules, domestic responsibilities, lacking of time, and scheduling of CNE activities, lack of management support and cost of courses as key deterrents (Chong *et al.*, 2011; Fentahun & Molla, 2012; Ross *et al.*, 2013).

In Malaysia, as in many places, women have the double burden of growing professionally while enduring larger burdens on the domestic front. This would naturally make it harder to pursue additional education compared to men, who have more time due to less domestic work. Additionally, the results of this study do not rhyme with the outputs of other studies, which show that socio-demographic variables play a role in pursuing

CNE (Chong *et al.*, 2011; Chong *et al.*, 2014; & Kamariannaki *et al.*, 2017).

Highest scores for motivation factors, including renewing my licence to practice; improving my communications skills; adhering to hospital policy; being more critical in providing nursing care; improving my research skills; and improving my management skills. All factors that deter showed a mean of more than 3.0. No significant difference between various categories of the department on factors that influence CNE participation among registered nurses at the selected private hospital in Penang; $F(6, 81) = 0.558, p = 0.763 > 0.05$. On the other hand, other scholars suggested that maintenance of CPD is an alternative evidence as a competence registered nurse. These CPD records serve as the nurses' dynamic professional portfolios in the long term (Sinclair *et al.*, 2013). The findings of the present study show that the demographic variable (working departments) does not play an important role in the propensity of the factors that influence the participation in CNE. The results concluded that nurses were aware of the factors that motivate and deter participation in CNE. Other studies added that CNE through e-learning is an alternative option, where 46% of Malaysian nurses reported having a strong interest in considering e-learning as CNE in Malaysia (Chong *et al.*, 2016).

However, this study was not without limitations. Firstly, our findings show that demographic variables do not play an important role in the propensity of the factors that encourage or deter participation in CNE. Hence, the results cannot be generalised to other states in Malaysia. Secondly, our study was a cross-sectional study; hence,

a causal relationship could not be inferred. Finally, this study may not have captured other predictors of motivation and hindering factors in CNE participation among the registered nurses. Future studies may thus consider another method of gathering data, such as conducting in-depth interviews in qualitative research to accurately reflect the feelings of the hindering factors and generate comprehensive results.

CONCLUSION

The desire to improve knowledge and skills, raise the professional profile, keep up with professional requirements to practice and gain promotions have been identified as key promoters of CNE participation among private sector nurses in Penang, Malaysia. Lack of support from families, work-life balance challenges, poor availability of information on CNE programs, and poor experiences in the CNE programmes have been identified as key deterrents for this target population. This study indicated a need to develop an effective strategy for nurses to participate in the future CNE.

Conflict of Interest

The authors declare they have no competing interests.

ACKNOWLEDGEMENT

The authors would like to thank the registered nurses in the selected private hospital for their participation in the study. Appreciation also goes to the hospital management and the Nursing Director. This study was supported by the International Medical University research grant, BN 1/2020 (PR-36).

REFERENCES

- Aboshaiqah, A. E., Qasim, A., Abualwafa, N., & Al-Bashaireh, A. M. (2012). Barriers for Continuing Professional Development Among Nurses in Saudi Arabia. In *Middle East Journal of Nursing* (Vol. 6, Issue 3). <https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip&db=c8h&AN=111793357&site=ehost-live>
- Al-Majid, S., Al-Majed, H., Rakovski, C. S., & Otten, R. A. (2012). Nurses' perceptions of and participation in continuing nursing education: Results from a study of psychiatric hospital nurses in Bahrain. *Journal of Continuing Education in Nursing, 43*(5), 230–240. <https://doi.org/10.3928/00220124-20120103-01>
- Bednarz, H., Schim, S., & Doorenbos, A. (2010). Cultural diversity in nursing education: Perils, pitfalls, and pearls. *Journal of Nursing Education, 49*(5), 253–260. <https://doi.org/10.3928/01484834-20100115-02>
- Boniol, M., McIsaac, M., Xu, L., Wuliji, T., Diallo, K., & Campbell, J. (2019). WHO | Gender equity in the health

- workforce: Analysis of 104 countries. *World Health Organization, March*, 1–8. <http://apps.who.int/bookorders>.
- Channa, Z., Aziz, A., & Latif, W. (2013). Barriers to Participation in non-formal CNE Programs among Hospital Nurses in Pakistan. *Ann. Pak. Inst. Med. Sci*, 9(4), 205–210. <https://doi.org/10.4172/2167-1168.C1.013>
- Chong, M. C., Francis, K., Cooper, S., & Abdullah, K. L. (2014). Current Continuing Professional Education Practice among Malaysian Nurses. *Nursing Research and Practice*, 2014, 1–6. <https://doi.org/10.1155/2014/126748>
- Chong, M. C., Francis, K., Cooper, S., Abdullah, K. L., Hmwe, N. T. T., & Sohod, S. (2016). Access to, interest in and attitude toward e-learning for continuous education among Malaysian nurses. *Nurse Education Today*, 36, 370–374. <https://doi.org/10.1016/j.nedt.2015.09.011>
- Chong, M. C., Sellick, K., Francis, K., & Abdullah, K. L. (2011). What influences malaysian nurses to participate in continuing professional education activities? *Asian Nursing Research*, 5(1), 38–47. [https://doi.org/10.1016/S1976-1317\(11\)60012-1](https://doi.org/10.1016/S1976-1317(11)60012-1)
- Fentahun, N., & Molla, A. (2012). Determinants of and opportunities for continuing education among health care professionals in public health care institutions in Jimma township, Southwest Ethiopia. *Advances in Medical Education and Practice*, 3(September), 89–96. <https://doi.org/10.2147/AMEP.S35289>
- Javed, Z., & Khan, A. (2016). Impact of Continuing Nursing Education (CNE) on Nurse's Knowledge and Patient Satisfaction: A Study in Pakistan's Tertiary Care Hospital. *Journal of Nursing & Care*, 5(4), 4172. https://www.hilarispublisher.com/conference-abstracts-files/2167-1168.C1.019_191.pdf
- Kamariannaki, D., Alikari, V., Sachlas, A., Stathoulis, J., Fradelos, E. C., & Zyga, S. (2017). Motivations for the participation of nurses in continuing nursing education programs. *Archives of Hellenic Medicine*, 34(2), 229–235.
- KalaBarathi, S., Jagadeeswari, M. J., & Gowri, P. M. (2018). A Study To Assess The Impeding Factors For Nurses' Participation In Continuous Professional Development Activities.
- Marzuki, M. A., Hassan, H., Wichaikhum, O., & Nantsupawat, R. (2012). Continuing Nursing Education: Best Practice Initiative in Nursing Practice Environment. *Procedia - Social and Behavioral Sciences*, 60, 450–455. <https://doi.org/10.1016/j.sbspro.2012.09.405>
- Ministry of Health Malaysia. (2008). *Guidelins Continuing Professional Development For Nurses*. <https://www.mycpd2.moh.gov.my/attachment/docs/D614615.pdf>
- Muliira, J. K., Etyang, C., Muliira, R. S., & Kizza, I. B. (2012). Nurses' orientation toward lifelong learning: A case study of Uganda's national hospital. *Journal of Continuing Education in Nursing*, 43(2), 90–96. <https://doi.org/10.3928/00220124-201111003-03>
- Ni, C., Hua, Y., Shao, P., Wallen, G., Xu, S., & Li, L. (2014). Continuing Education Among Chinese Nurses: A General Hospital-based Study. *Nursing Education Today*, 34(4), 592–597. <https://doi.org/10.1016/j.nedt.2013.07.013>.Continuing
- Organisation for Economic Co-operation and Development (OECD) (2020). *Forthcoming OECD policy brief: Women at the core of the fight against COVID-19*. 1–30. [https://read.oecd-ilibrary.org/view/?ref=127_127000-awfnqj80me&title=Women-at-the-core-of-the-fight-against-COVID-19 crisis%0Ahttp://www.oecd.org/coronavirus/en/](https://read.oecd-ilibrary.org/view/?ref=127_127000-awfnqj80me&title=Women-at-the-core-of-the-fight-against-COVID-19%20crisis%0Ahttp://www.oecd.org/coronavirus/en/)
- Ross, K., Barr, J., & Stevens, J. (2013). Mandatory continuing professional development requirements: What does this mean for Australian nurses. *BMC Nursing*, 12(1), 1. <https://doi.org/10.1186/1472-6955-12-9>
- Salmond, S. W., & Echevarria, M. (2017). Healthcare Transformation and Changing Roles for Nursing. *Orthopaedic Nursing*, 36(1), 12–25. <https://doi.org/10.1097/NOR.0000000000000308>

- Schweitzer, D. J., & Krassa, T. J. (2010). Deterrents to nurses' participation in continuing professional development: An integrative literature review. *Journal of Continuing Education in Nursing, 41*(10), 441–448. <https://doi.org/10.3928/00220124-20100601-05>
- Shahhosseini, Z., & Hamzehgardeshi, Z. (2015). The facilitators and barriers to nurses' participation in continuing education programs: a mixed method explanatory sequential study. *Global Journal of Health Science, 7*(3), 184–193. <https://doi.org/10.5539/gjhs.v7n3p184>
- Sinclair, P. M., Bowen, L., & Donkin, B. (2013). Professional nephrology nursing portfolios: Maintaining competence to practise. *Renal Society of Australasia Journal, 9*(1), 35–40. <http://hdl.handle.net/1959.13/1295364>
- Wang, Y., Sun, L., Greene, B., Sun, H., Ding, Y., & Li, C. (2018). Current continuing nursing education among beijing nurses: A cross-sectional study. *Journal of Continuing Education in Nursing, 49*(11), 526–536. <https://doi.org/10.3928/00220124-20181017-10>