What Influences Malaysian Nurses to Participate in Continuing Professional Education Activities?

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Purpose A cross sectional descriptive study, which involved government hospitals and health clinics from Peninsular Malaysia sought to identify the continuing professional education (CPE) needs and their readiness for E-learning. This paper focuses on the first phase of that study that aimed to determine the factors that influence nurses’ participation in CPE.

Methods Multistage cluster sampling was used to recruit 1,000 nurses randomly from 12 hospitals and 24 health clinics from four states in Peninsular Malaysia who agreed to be involved. The respondent rate was 792 (79.2%), of which 562 (80%) had participated in CPE in the last 12 months.

Results Findings suggested that updating knowledge and providing quality care are the most important factors that motivate participation in CPE, with respective means of 4.34 and 4.39. All the mean scores for educational opportunity were less than 3.0. Chi-square tests were used to test the association of demographic data and CPE participation. All demographic data were significantly associated with CPE participation, except marital status.

Conclusions Implementation of mandatory CPE is considered an important measure to increase nurse’s participation in CPE. However, effective planning that takes into consideration the learning needs of nurses is recommended. [Asian Nursing Research 2011;5(1):38–47]

Key Words continuing education, Malaysian nurses, professional education

INTRODUCTION

Continuing professional education (CPE) is imperative in facilitating the professionalization of nursing in Malaysia. The importance and relevance of CPE to nurses has been increasingly emphasized in the literature (Levet-Jones, 2005; Macdonald, 1994; Thurston, 1992). In 2008, the Malaysian Nurses Board endorsed that nurses are required to participate in a minimum number of hours of education

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and training each year. Mandating compliance reinforces the message that health care is dynamic and that nurses must update their knowledge and skills to keep pace with change. There is an expectation that professionals, such as nurses, maintain currency, irrespective of external pressures.

The issues reported in the literature influencing nurses’ decisions to participate in CPE include demographics, beliefs, attitudes, motivational factors, and educational opportunities. A number of researchers (Abu Salim, 2001; Lee, 2004; Muthu, 2006; Pathan, 2008) have reported participation in CPE by Malaysian nurses as less than satisfactory, despite the Malaysia Nursing Board’s adoption of mandatory CPE (Pathan). The present study sought to determine factors that influence Malaysian nurses to participate in CPE activities.

**Literature review**

**Continuing professional education (CPE)**

CPE in health care disciplines is accepted as an essential expectation of professional practitioners (International Council of Nurses, 2008). Happell (2004) argued that in order for the nursing profession to achieve professionalism, nurses must develop greater skills, undertake higher education, and engage in life-long learning. This is consistence with the finding by William (1996), who suggested that knowledge acquired through basic professional education has a half-life of about 2.5 years and by the end of that period, knowledge not enhanced through further education and training will become outmoded or obsolete. Gillies & Petengill (1993) maintain that basic education for practice becomes obsolete within 5 years of graduation and this obsolescence can cause nurses to perform poorly and lead to client disability, continued illness, and even deaths. It is important that nurses update their knowledge and skill continuously.

**Factors influencing nurses’ participation in CPE**

Many factors motivate nurses to participate in CPE programs. The most common factors found in previous studies are professional knowledge, professional advancement, relief from routine, compliance with authority, improvement in social welfare skills, and improvement in social relations and acquisition of credentials (Kristjanson & Scanlon, 1989; Thomas, 1986; Waddell, 1993). Among these factors, improving professional knowledge and skills are considered the most prominent factors, followed by the need to maintain current professional practices and improve their ability to serve the public (O’Connor, 1979). In his study, O’Connor also found that mandatory CPE had less effect than voluntary CPE on motivating nurses to participate. Conversely, Kristjanson and Scanlon discovered increased job competence and an improvement of the professionalism of nursing as important motivation factors.

Another study by Glass and Todd-Atkinson (1999) reported that the main factors encouraging nurses to engage in CPE were supervisor support (74%), availability of suitable CPE programs (73%), and peer encouragement (68%). Kersaitis (1997) stated that employer assistance plays an important role in a nurse’s participation in CPE. This study found that 45% (n = 169) of respondents participating in CPE had received some form of assistance from their employer. Assistance was either an extrinsic reward for participation or providing leave with or without pay for the purpose of participation. DeSilets (1995) identified that the participation of nurses in CPE was attributed to similar reasons to others studies, such as professional development, professional service, collegial, and interaction, together with personal benefits, job security, professional commitment, and reflection.

Studies undertaken in the Asian region, including Malaysia and Hong Kong, have reported quite similar outcomes. For instance, Muthu (2006) found that the factors that motivate Malaysian nurses to participate in CPE were to upgrade their skills and knowledge and to increase their professionalism. Likewise, among Hong Kong nurses, Lai (2006) identified the main incentives for participating in CPE activities were to increase professional knowledge (93%), compliance with hospital policy (89%), to improve patient care skills (88%) and to meet recommended statutory requirements (81%).

In Malaysia, registered nurses (RN) form the largest group of health care personal, providing health care
services to the county’s population in both the public and private sectors. Nurses can take a 3-year diploma or a 4-year degree in nursing to qualify as an RN with the Malaysia Nursing Board. Both programs introduce the concept of continuing education. Subsequently, their participation in CPE activities will largely depend on the influence of their nurse educator, nurse manager, or peers. In line with the issue in the Malaysian Nursing Act 1950, there is no clause stipulating the requirement of voluntary or mandatory CPE for the re-licensure of the nurses’ annual practicing certificate. As such, RNs in Malaysia have since participated in available CPE activities using their own initiative due to an interest in a specific subject.

However, the globalization wave regarding development in nursing influenced the Nursing Board of Malaysia in 1998 to include the requirement of CPE in the Nurses’ Code of Conduct. All nurses should at least have ten contact hours in CPE activities a year. Since the addition of this statement, nurses have participated in available CPE activities on their own initiative and voluntarily because the Nursing Board did not mandate the participation. Hence, the question arises whether Nursing Board Leaders, health authorities, consumers and legislators, and the RNs themselves should voluntarily participate to continue or should it be changed to the mandatory approach to CPE. The Nursing Board of Malaysia realized the importance of CPE, and proposed guidelines for CPE and the legislation of mandatory CPE for Malaysia nurses. It was implemented in 2008.

The aims of this study were to (a) determine the CPE practice of Malaysian nurses and (b) examine the factors that influence nurses’ participation in CPE activities.

METHODS

Setting

Health services provided to Malaysian communities, which comprise primary, secondary, tertiary and rehabilitative care, continue to improve via an extensive network of 128 hospitals and 2,987 health clinics (Government of Malaysia, 2006). The hospitals vary according to location, size, and services provided. For example, state hospitals will have a range of 500–1,600 beds; district hospitals an average of 300 beds, and rural hospitals, 100 beds. State hospitals are divided into general and specialized facilities; usually they serve as referral centers, which are located in the city. District hospitals are located in suburbs, while rural hospitals are in rural areas. The community health clinics are located in urban, suburban, and rural areas; even very remote areas have access to health services. The services provided mainly focus on primary health care and health promotions. There are approximately 70,000 thousand registered nurses in Malaysia, who are generally assigned to both hospital and community clinics following their graduation.

Design

A quantitative cross-sectional survey was designed for the first phase of the study to obtain information from the population regarding CPE practice and the factors affecting CPE participation. A quantitative approach allows and helps the researcher in describing and examining the interaction among variables.

Population and sample

The target population was 70,000 registered nurses working in 178 Ministry of Health hospitals and 2,987 community clinics. The inclusion criteria for the sample were that they must be state RNs with at least 1 year’s working experience. The sample’s participation in the study was based on voluntary, basic and implied consent. Nurses who were on maternity leave, study leave, unpaid leave, or long medical leave were excluded from the study.

Multistage cluster sampling was used for this survey because it involves the sampling of entire natural groups rather than individuals and the population is spread widely across a large geographic area. The goal of the sampling method was to draw a random sample of 1,000 registered nurses from 12 hospitals and 24 health clinics from a sample of 4 of the 13 states in Peninsular Malaysia.
Data collection
Data were collected using a self-explanatory structured questionnaire. The questionnaires, with return mail envelopes, were given to the hospital nurses’ officer or manager of the Nursing Administration Unit. Brief instructions were given to the nurse offices on the date line for returning the questionnaire and the items in the questionnaires explained to them. The officer or nurse’s manager distributed the questionnaires to the nurses randomly by internal mail.

The nurses were given written explanatory statements, which explained the research procedure and instructions to put the completed questionnaires in the envelope provided and to seal it to maintain confidentiality. All those who returned the forms were ticked off the list to allow the researcher to keep track with the respondent rate. The respondents were assured that they would be kept anonymous.

Instrument
The instruments were developed with considerable attention given to construct clear and unambiguous items. When items were developed, care was taken to use simple language and short sentences that were neither double-barreled nor leading. A close-ended questionnaire and the Likert scale was used. This questionnaire was developed based on a literature search on the main tools related to CPE (Griscti & Jacono, 2006; Lai, 2006; Muthu, 2006). This questionnaire consisted of three parts; Part A: Demographic information of the respondents; Part B: factors that motivate nurses’ participation in CPE practice; and Part C: factors that deter nurses’ participation in CPE.

Prior to conducting the study the questionnaire was reviewed by a panel of experts drawn from universities and colleges in Malaysia with at least 5 years of teaching experience in nursing and/or tertiary education, preferably with experience in CPE programs and e-learning. The questionnaire was then pilot-tested on a convenience sample of registered nurses from the University of Malaya Medical Centre who were not involved in the actual study. Participants were asked to identify any items they had difficulty answering, and to specify the length of time it took to complete the questionnaire.

Ethical consideration
Ethics approval to conduct the study was obtained from the Malaysia Economic Planning Unit, the Ministry of Health Malaysia, the University of Malaya Medical Centre, and Monash University. All nurses invited to participate in the study were given an explanatory statement that provided details of the study and what it entailed, and assurances that all information would be treated in strict confidentiality and that they would remain anonymous. Return of completed questionnaires was taken as their consent to participate in the study.

Data analysis
SPSS version 16.0 for Windows (SPSS Inc., Chicago, IL, USA) was used for statistical analyses. Statistical analyses included frequency, percentage, mean, and standard deviation for a univariate analysis.

RESULTS
The total number of respondents in this study was 792 registered nurses from 12 hospitals and 24 health centers in Peninsula Malaysia. The response rate was 79.2%. Table 1 shows the demographic characteristics of the respondents.

Figure 1 shows the participation rate in CPE. Only 71% \((n=562)\) of nurses had attended CPE activities in last 12 months, despite implementation of mandatory CPE by the Malaysia Nursing Board. Figure 2 illustrates the credit points obtained by the nurses’ participation in CPE activities. Less than 50% of the nurses had obtained 25 credit points and above.

Table 2 describes the motivation orientation of nurses. The five most important factors that motivated them to participate in CPE were to give quality care to patients, to update knowledge, to improve skills in clinical practice, to improve communication skills, and to obtain knowledge to achieve professional status. Table 3 explains the factors that deter nurses from participating in CPE. The findings reflect that deterrence factors did not affect the nurses, as all the mean scores were low, with mean range from 2.52 to 3.54. The five most important factors that deterred nurses...
from participating in CPE were work commitments (3.54), domestic responsibilities (3.42), time constraints (3.41), and scheduling of CPE activities (3.40), and cost of courses (3.38). Negative experiences with previous CPE programs, emotional stress, and poor health were not viewed as important deterrents, as all the mean scores were below 3.00.

The association between demographic data and practice of CPE was tested with a Chi-square analysis. Most of the factors were significantly associated with CPE practice \((p < .05)\), except for marital status. Most of the nurses (83%) 44 years old and above participated in CPE practice. Seventy-seven percent of the nurses from the age group 33–43 took part in CPE activities. Only 64.5% of youngest group age range 20–32 attended CPE \((p = .001)\). The nurses with longest years of experience, that is 11–22 years and 20 years and above had higher levels of participation in CPE compared to the group of nurses with 1–5 years and 6–10 years above experience \((p = .01)\). CPE is also significantly associated with the number

Table 1

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n</th>
<th>%</th>
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<tbody>
<tr>
<td>Age (yr)</td>
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<tr>
<td>20–32</td>
<td>453</td>
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<tr>
<td>33–43</td>
<td>187</td>
<td>23.6</td>
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<tr>
<td>≥ 44</td>
<td>152</td>
<td>19.2</td>
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<tr>
<td>M±SD</td>
<td>33.89 ± 9.11</td>
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<tr>
<td>Marital status</td>
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<tr>
<td>Married</td>
<td>611</td>
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<tr>
<td>Single</td>
<td>166</td>
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<tr>
<td>Separated/divorced</td>
<td>6</td>
<td>.8</td>
</tr>
<tr>
<td>Widow/widower</td>
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<tr>
<td>No. of Children(^a)</td>
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<td></td>
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<tr>
<td>0</td>
<td>80</td>
<td>10.1</td>
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<tr>
<td>1–2</td>
<td>327</td>
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<tr>
<td>3–4</td>
<td>183</td>
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<td>≥ 5</td>
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<td>4.7</td>
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<tr>
<td>Diploma in nursing</td>
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<td>Advance diploma in nursing</td>
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<tr>
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<td>2.3</td>
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<td>Household income (RM)</td>
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<td>2,001–3,000</td>
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<td>3,001–4,000</td>
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<td>4,001–5,000</td>
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<tr>
<td>≥ 5,001</td>
<td>92</td>
<td>11.6</td>
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<td>M±SD</td>
<td>3.941 ± 1633.38</td>
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<td>Tertiary hospital</td>
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<tr>
<td>Secondary hospital</td>
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<td>Primary hospital</td>
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<tr>
<td>Health clinic</td>
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<tr>
<td>Service (yr)</td>
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<tr>
<td>1–5</td>
<td>523</td>
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<tr>
<td>6–10</td>
<td>143</td>
<td>18.1</td>
</tr>
<tr>
<td>11–15</td>
<td>126</td>
<td>15.9</td>
</tr>
<tr>
<td>M±SD</td>
<td>10.16 ± 8.54</td>
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\(^a\) Missing value: excluded.
of children the nurses have ($p = .019$). Nurses who have three to four (79.8%) and no children (72.5%) were more active CPE participants compared to those with one to two (66.1%) or more than four children (70.3%, $p = .012$). There is a significant relationship between educational level and participation of CPE. Nurses with a degree (100%) and postbasic (93%) qualifications showed higher levels of participation in CPE than diploma nurses (63.8%) did ($p = .001$). The relationship between institutions and CPE participation is significant ($p = .017$) with nurses employed in the health clinic (85.7%) and tertiary hospital (71.4%) more likely to undertake CPE than those in primary (65.8%) and secondary hospitals (67.1%).

**DISCUSSION**

The findings of this study show that most nurses had attended CPE to fulfil minimum requirement for relicensure; however, 230 (29%) nurses who did not participate in any CPE activities throughout the year, despite implementation of mandatory CPE for Malaysian nurses. In contrast, previous studies undertaken in Malaysia before enactment of mandatory CPE found the nurses participation rate in CPE were more encouraging than the present study (Abu Salim, 2001; Lee, 2004; Muthu, 2006; Pathan, 2008). This finding suggests that legislation of mandatory CPE does not warrant nurses’ commitment to ongoing learning (Lai, 2006). However the acquisition of knowledge and skill depends on the effectiveness of CPE (Hegney, Tuckett, Parker, & Robert, 2010) and the motivation level of nurses is crucial to ensure the positive outcome of CPE (Ryan, 2003).

Despite of the unfavourable participation rate in CPE among nurses in this study, the nurses mean score for motivation factors were high. Nurses from this study rated highly on factors such as to obtain knowledge, to improve their skills in practice and communication which would enable them to give quality care to patients. Similarly finding was found...
in previous studies (Lai, 2006; Levett-Jones, 2005). Meeting the requirement of council and organization and for re licensure were emphasized in several literature (Gallagher, 2007; Lai, 2006), on the contrary nurses from this study did not perceive the mandated CPE for re-licensure and to fulfil the organization needs as most important to them. This may account for the 20% who did not engage in any CPE.

Study results reflect that deterrent factors did not affect the nurses, as all the mean scores were low. The five most important factors that prevented nurses from participating in CPE were work commitments, domestic responsibilities, time constraints, scheduling of CPE activities, and cost of courses which are consistent with those found in previous studies (Apgar, 2001; Hegney et al., 2010). Work commitment is the main deterrent factor that hinders nurses from participation in CPE. Since nurses are on shift duty, nurses on night shift are more likely to have lack of opportunity in CPE (Aoki & Davis, 2002) and the impact of staff shortage affects the ability of a superior to release the staff to attend CPE during work time (Apgar).

Time constraint and family commitment were factors affecting the flexibility of the nurses’ availability for CPE such as arrangement for household chores and child care, travelling, and access to computers during nonworking time. The rigidity of working hours (Gould, Drey, & Berridge, 2007) may hinder rural health nurses as well as geographical constraint, nurses who are working in the environment where staff is limited, and those who work alone and need to attend CPE away from their community (Penz et al., 2007).

This study also found the respondents’ age, years of experience in work, household income, number of children, professional education and work place were significantly associated with the participation of CPE activities. The present study found senior nurses were more active in CPE activities. This may be explained by house hold income as senior nurses may have higher income. Bariball and While (1996) contradicted this finding as they found that younger and less experienced nurses favoured CPE.

CPE is also significantly associated with the number of children the nurses have ($p = .019$). Nurses who have three to four or more than four children were more active CPE participants compared to those with one to two or no children were. Similar finding was not found in other literature.

One of the reasons offered by nurses for this anomaly was that younger and less experienced nurses participated in CPE to a lesser level because of the financial implications associated with accessing CPE. Most of the younger nurses in the sample are single and have less household income than the married nurse cohort. Abu Salim (2001) argues that younger nurses prioritize caring for their young children over career and work while senior nurses prioritize CPE.

In this study, there is a significant relationship between educational level and participation of CPE. Nurses with a degree and postbasic qualifications showed higher levels of participation in CPE than diploma nurses did. Similarly, Lee (2004) also found significant relationship between nurses with higher education and participation in CPE.

Overall, the study findings reveal that there is an association between demographic factors, such as age, number of children below 5 years old, and years of experience to the perception of RNs regarding the practice of CPE. There was no correlation between the mean score of motivational factors and CPE participation and deterrence factors and CPE participation.

**IMPLICATIONS**

The findings of this study show that most nurses had attended CPE to fulfill minimum requirement for re-licensure; however, 230 (29%) nurses did not participate in any CPE activities throughout the year, despite implementation of mandatory CPE for Malaysian nurses.

This study has implications for nursing education, including the need to prioritize the value of CPE within programs. There is a need to evaluate current CPE programs endorsed by the Malaysian Nurses Board for effectiveness, quality, and cost, and the impact of the mandated program on the nursing work force and outcomes for care. In order to upgrade the nursing status in Malaysia, nurses are
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encouraged to pursue higher education. The nursing education in Malaysia is developing progressively. The University of Malaya started the degree program in 1993. It has increased to seven public universities offering full time degree programs. The Open University Malaysia, Marsha College University, and Universiti Teknologi Mara also offer distance learning. Distance learning uses the hybrid on-line learning systems, which incorporate the on-line and face-to-face methods in delivery of courses. Distance learning has enabled more nurses to participate in CPE.

The degree nursing programs offered are in categories from preregistration to postregistration. A preregistration course is a full time course, usually for school leavers. However, postregistration courses are meant for existing nurses who desire to pursue tertiary education to upgrade themselves.

The nursing degree curriculum in Malaysia generally encompasses nursing sciences, behavioral science, health sciences, and information technology and communication skills. Research is an important component of degree program, student are required to attend three credit hours of research and biostatic courses, and to conduct a project with contribute six credit hours of the courses.

Besides pursuing a degree program, more nurses further their studies with Master’s or PhD courses. The majority of them are self-sponsored and do it on their own time. Two public universities in Malaysia offer Masters degrees in nursing, followed by two private universities, which offer a distance-learning module. This initiation has given the Malaysian nurses an opportunity to pave their journey to professionalization.

RECOMMENDATIONS

The study findings reveal that there are constraints that limit nurses’ participation in CPE. It is recommended that a more structured program of CPE be planned and produced with the collaboration of the three aspects of nursing. A nursing committee should plan a structured program, which can evaluate the CPE program. With the findings, future activities can be planned according to the learning needs of nurses. A careful planning of CPE program is needed if mandatory CPE has to be implemented. The rationale based upon the factual evidence should be thoroughly examined. Without careful planning and research, mandatory CPE is unlikely to deliver the anticipated development of reflective practice and critical thinking considered crucial for improved patient care. A nursing research team should be formed. All the nursing graduates should be motivated to be involved and share their knowledge in doing the research. Research is very important to enable nurses to tackle the issues in nursing profession. The research also can give guide us to implement necessary measures to encounter CPE implementation.

In this information communication technology (ICT) era, many young nurses are part of the ICT booming generation; perhaps the nursing administration and education should take advantage of the ICT to promote CPE. It could support more tertiary nursing education through online learning, and initiate more innovative teaching and learning methods, such as web blog, online problem-based learning (PBL), reflective community, and accessibility of e-library.

CONCLUSIONS

According to this study, most Malaysia nurses have participated in CPE activities. They are highly motivated in engaging in CPE. In others words, they appreciate the importance of CPE. However, there seems to be a lack of educational opportunities for them to participate in CPE, such as too costly and time and space constraints. Demographical factors play an important determinant in CPE practice. Nursing administrative and educators should carry out a CPE inventory to ensure the learning needs of nurses are achieved. With the findings from this study, it is important for the organization and its members to examine the importance and the necessity of CPE and mandatory CPE in our Malaysian setting, especially in primary and secondary hospitals. Collaboration among nursing leaders in every area is vital.
to increase the quality of our practice, and most importantly, our nursing profession.

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