Vietnam Journal of Community Medicine, Vol. 66, English version, 65-70

CURRENT SITUATION OF CONTINUING MEDICAL EDUCATION FOR PHYSICIANS AT BINH DUONG PROVINCIAL GENERAL HOSPITAL IN 2023

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Received: 10/06/2025
Revised: 15/06/2025; Accepted: 21/06/2025

ABSTRACT

Objective: To assess the current status of continuing medical education (CME) for physicians at Binh Duong General Hospital during the first nine months of 2023.

Subjects and methods: A cross-sectional descriptive study was conducted on 218 physicians who voluntarily participated by completing a self-administered, anonymous questionnaire.

Results: The proportion of physicians assigned to CME activities was 90.4%. Physicians with a professional practice certificate were more likely to participate (93.3%) than those without (81.8%) ($p < 0.05$). The average appropriateness score for the training courses was 3.82 out of 5, with 10.6% rating them as very appropriate and 59.6% as applicable. Physicians holding a license to practice were 3.1 times more likely to participate in CME compared to those without a license.

Conclusion: The hospital's CME activities demonstrated high physician participation. However, it is necessary to enhance communication about CME regulations and continue improving the quality of training programs in the future.

Keywords: Physician, general hospital, Binh Duong, continuing medical education, current status.

1. INTRODUCTION

Healthcare is a sector characterized by unique demands, with responsibilities directly related to the health and lives of individuals. Therefore, the continuous updating of knowledge and techniques, along with the minimization of professional errors, is a mandatory requirement for all healthcare workers. This requirement is clearly outlined in several official circulars on Continuing Medical Education (CME) issued by the Ministry of Health, such as Circular No. 22/2013/TT-BYT and Circular No. 26/2020/TT-BYT. These documents are directly linked to the issuance, non-issuance, or revocation of the medical practice license [1,2].

Binh Duong Provincial General Hospital is a Level I hospital with a capacity of 1,500 beds and a medical staff of 346 doctors working across 42 clinical and administrative departments [3]. In recent years, the hospital has strictly complied with CME regulations. It has been assigned the CME code C61.01, which authorizes it to organize both in-house training and training for lower-level healthcare facilities, including programs for physicians. To provide a scientific basis for improving the effectiveness of CME implementation, this study was conducted to describe the current status of CME and analyze associated factors among physicians working at Binh Duong Provincial General Hospital in 2023.

2. PARTICIPANTS AND METHODS

2.1. Study design: This was a cross-sectional descriptive study.

2.2. Study setting and duration: The study was

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conducted at Binh Duong Provincial General Hospital from February 2023 to October 2023.

2.3. Study population: The study included all physicians currently working at Binh Duong Provincial General Hospital.

- *Inclusion criteria:* Physicians who had worked or collaborated at the hospital for at least nine months and voluntarily agreed to participate in the study.

- *Exclusion criteria:* Physicians on maternity leave, sick leave, long-term training (over one year), those in the process of resignation or retirement, and the authors of this study.

2.4. Sample size and sampling method:

The sample size was calculated using the formula for estimating a single proportion. The minimum required sample size was determined with the following parameters: Z_1-α/2 = 1.96 (with α = 0.05), p = 0.9 based on the hospital's 2023 target CME coverage for physicians [3], and d = 0.04 as the allowable margin of error. The calculated minimum sample size was 217. In practice, the study was conducted with 218 participants.

Sampling method: Simple random sampling was used. A list of 346 physicians was compiled, each assigned a unique identification number. Then, the Stata software was used to randomly select 218 numbers from the range of 01 to 346.

2.5. Study variables:

The general characteristics of study participants included age group, gender, professional qualifications, job title, possession of a medical practice license, and years of service.

Variables related to continuing medical education (CME) were defined as participation in short-term training courses, including refresher training, continuous medical education (CME), continuing professional development (CPD), technical transfer programs, and training sessions mandated by the Ministry of Health [2]. Participants' evaluations of the training courses they attended were measured using a five-point Likert scale.

2.6. Data Collection Techniques, Tools, and Procedures: The primary data collection tool was a self-administered questionnaire, developed based on the contents of Circular No. 22/2013/TT-BYT [2] and Circular No. 26/2020/TT-BYT [1], as well as related reference studies [4]. The questionnaire consisted of two sections: Part 1 (General Information) and Part 2 (Current Status of Participation in CME). The questionnaire was distributed directly to all selected participants.

2.7. Data processing and analysis: All collected data were cleaned, coded, and entered into SPSS software version 17.0 for processing and analysis. Descriptive statistics, including frequencies and percentages, were used to summarize the data. Univariate logistic regression analysis was performed to determine odds ratios (OR) with 95% confidence intervals (CI). Statistical significance was assessed using the Chi-square test with a p-value threshold of 0.05.

2.8. Ethical Considerations: The study was conducted with formal approval and support from the Board of Directors of Binh Duong Provincial General Hospital. Before participating, all respondents were fully informed about the study's purpose, procedures, benefits, and responsibilities, including their right to voluntarily participate or withdraw from the study at any point without any negative impact on their current employment. The confidentiality of all personal information was strictly maintained throughout the data collection, analysis, and publication processes.

3. RESULTS

A total of 218 physicians participated in this study. The general demographic characteristics of the participants are presented in Table 1.

Table 1. Sociodemographic characteristics of physicians at the hospital (n = 218)

General characteristics	Frequency (n)	Percentage (%)
Age group		
≤ 30 years	112	51,4
31–40 years	72	33,0
41–50 years	18	8,3
> 50 years	16	7,3
Gender		
Male	128	58,7
Female	90	41,3
Professional qualification		
General practitioner	153	70,2
Master's degree/ First-level specialist	53	24,3
Doctorate/ Second-level specialist	12	5,5
Employment status		
Permanent/long-term contract	202	92,7
Short-term contract	13	6,0

General characteristics	Frequency (n)	Percentage (%)
Interns or pending contract	3	1,4
License to practice		
Yes	163	74,8
No	55	25,2
Work unit		
Clinical department	199	91,3
Paraclinical department	16	7,3
Administrative department	2	0,9
Years of experience		
Other	1	0,3
< 10 years	183	83,9
≥ 10 years	35	16,1

Table 1 shows that 51.3% of physicians were under the age of 30, and 58.7% were male. A total of 70.3% held a university-level medical degree, 92.7% were on permanent or long-term contracts, 74.8% possessed a license to practice, and 91.3% were working in clinical departments. Only 16.1% had more than 10 years of professional experience.

The proportion of physicians who participated in continuing medical education is presented in Table 2.

Table 2. Participation in continuing medical education (n = 218)

Participation in CME	Frequency (n)	Percentage (%)
Yes	197	90,4
No	21	9,6

As shown in Table 2, 90.4% of physicians reported having participated in CME programs. Further analysis of the types of CME activities is presented in Table 3.

Table 3. Distribution of CME training formats (n = 218)

Training format	Frequency (n)	Percentage (%)
Workshops and training courses	141	64,7
Technical transfer programs	21	9,6
Scientific conferences, seminars, forums	177	81,2
Scientific research activities	19	8,7

Table 3 indicates that 81.2% of participants attended scientific conferences or forums, and 64.7% participated in workshops or training courses.

The evaluation of CME quality by physicians, based on its relevance to their specialty, is presented in Table 4.

Table 4. Physicians' evaluation of CME course quality (n = 197)

Evaluation level	Frequency (n)	Percentage (%)
Completely irrelevant	6	2,8
Irrelevant	2	0,9
Barely relevant (basic, already known content)	36	16,5
Relevant (aligned with specialty, improved clinical skills)	130	59,6
Highly relevant (specialized, skill-enhancing, applicable to practice)	23	10,6
Mean score (SD)	3,82 (0,8)	
Median (IQR)	4,0 (4,0; 4,0)	

As shown in Table 4, the average rating for course relevance was 3.82, which is close to the *"highly relevant"* level, indicating that most participants found the training applicable and beneficial to their practice.

We also examined the relationship between physicians' demographic characteristics and their participation in CME. The results are presented in Table 5.

Table 5. Association between demographic characteristics and CME participation

Variable	CME participation		OR (95% CI)	P-value
	Yes	No		
Professional qualification				
General practitioner	137 (89,5)	16 (10,5)	1	0,816
Master's/First-level specialist	49 (92,5)	4 (7,5)	1,3 (0,1 – 10,6)	
Doctorate/Second-level specialist	11 (91,7)	1 (8,3)	0,9 (0,1 – 8,8)	
Years of experience				
< 10 years	166 (90,7)	17 (9,3)	1	0,69
≥ 10 years	31 (88,6)	4 (11,4)	1,3 (0,4 – 4,0)	
Gender				
Male	118 (92,2)	10 (7,8)	1	0,27
Female	79 (87,8)	11 (12,2)	1,6 (0,6 – 4,0)	
Age group				
≤ 30 years	97 (86,6)	15 (13,4)	1	0,18
31–40 years	69 (95,8)	3 (4,2)	1,1 (0,2 – 5,2)	
41–50 years	17 (94,4)	1 (5,6)	0,3 (0,04 – 1,9)	
> 50 years	14 (87,5)	2 (12,5)	0,4 (0,03 – 5,0)	
Employment status				
Permanent/long-term	184 (91,1)	18 (8,9)	1	0,28
Short-term	11 (84,6)	2 (15,4)	1,2 (0,2 – 10,6)	
Other	2 (66,7)	1 (33,3)	0,9 (0,09 – 8,8)	
License to practice				
Yes	152 (93,3)	11 (6,7)	1	0,013
No	45 (81,8)	10 (18,2)	3,1 (1,2 - 7,7)	

Table 5 shows that physicians with a license to practice were 3.1 times more likely to participate in continuing medical education compared to those without a license, and this difference was statistically significant (p = 0.013). There were no statistically significant differences in CME participation among

physicians across different age groups, educational levels, years of experience, gender, or employment status.

4. DISCUSSION AND CONCLUSION

In this study, the age distribution of physicians at Binh Duong Provincial General Hospital indicates a trend toward a younger workforce, with 51.4% under the age of 30 and decreasing proportions in older age groups. Compared to the study by Le Thi Thu Huong at Thanh Hoa General Hospital, where 80.6% of physicians were aged 25–30 [5], the proportion in Binh Duong is lower. This difference may reflect variations in local policies related to the recruitment and training of young doctors. The proportion of female physicians was 41.3%, signaling progress in gender equality, although still lower than the 55% reported by Nguyen Thu Trang in a pediatric hospital setting [6]. This discrepancy may be attributable to the specific clinical context and work environment of pediatric versus general hospitals.

Approximately 70.2% of physicians held a bachelor's degree in medicine, which is consistent with the hospital's youthful age structure. Notably, nearly 30% had postgraduate degrees—a positive outcome that supports the hospital's mentorship model, where one senior doctor supervises two junior colleagues. Compared to Pham Van Dong's findings (27.8% with master's degrees and 20.4% with PhDs or second-level specialty training) [4], the postgraduate rate in Binh Duong is comparable, though the hospital has not yet achieved a 1:1 mentorship ratio. A total of 83.9% of physicians had less than 10 years of experience, consistent with the young workforce and possibly influenced by recent staffing fluctuations. Significantly, 92.7% of physicians were public employees under long-term contracts, reflecting the effectiveness of Binh Duong's policy in attracting and retaining medical professionals in the public sector. This is particularly important in the context of many provinces facing a "brain drain" in healthcare [7].

The proportion of physicians holding a valid license to practice was 74.8%, creating favorable conditions not only for hospital operations but also for patient safety, as licensed doctors can assume legal responsibility for their medical practice. This is comparable to findings from Nguyen Thu Trang's study at satellite pediatric hospitals (78.6%) [6]. Regarding workplace assignments, 91.3% of physicians worked in clinical departments, a proportion higher than that reported in Pham Van Dong's study (76.9%), which also had a higher share of paraclinical staff (18.5%) [4].

The proportion of physicians participating in CME was 90.4%, meeting the requirements of the Ministry of Health's hospital quality assessment standards [8]. Notably, the hospital covered the full cost of CME for its physicians using self-managed funds, except for training related to scientific research. This differs from Pham Van Dong's study, in which most training courses were funded by projects or external programs (56.2%) or paid by the healthcare unit itself (36.5%) [5]. The most common CME activity was attendance at scientific conferences, seminars, and forums (81.2%), followed by participation in workshops and training sessions (64.7%). Technical transfer programs accounted for 9.6%, while self-directed learning through scientific research was reported by only 8.7%. This distribution is reasonable, given the considerable time, effort, and financial resources required to conduct scientific research. The proportion is markedly lower than that reported by Tran Duc Trong, where 30.8% of physicians participated in research activities [9].

Regarding course quality, the mean evaluation score was 3.82 out of 5, with 59.6% of physicians rating the courses as *"appropriate"* and 10.6% as *"highly appropriate"*. This indicates that current training programs largely meet the needs for professional development and skills enhancement. Only 2.8% of respondents rated the courses as inappropriate, with just 0.9% indicating that the content did not match their specialty, suggesting that the course content was generally well-targeted. Compared to Pham Van Dong's study, in which 99.3% rated the training as good quality [4], the score in Binh Duong is slightly lower but arguably more stratified and realistic.

Analysis of factors associated with CME participation revealed that only possession of a practice license was statistically significant ($p = 0.013$). This suggests that maintaining a valid license not only fulfills legal obligations but also correlates with greater professional responsibility, personal reputation, and administrative benefits. In contrast to Pham Van Dong's study—where age, qualifications, and work experience were significantly associated with CME participation [4]—the findings in Binh Duong indicate a more equitable distribution of training opportunities across a relatively young and less stratified workforce.

5. CONCLUSION

The proportion of physicians participating in continuing medical education (CME) reached 90.4%. Among them, those with a license to practice had a higher participation rate (93.3%) compared to those without (81.8%). Licensed physicians were 3.1 times more likely to engage in CME activities than their unlicensed counterparts,

and this difference was statistically significant ($p < 0.05$). To further enhance the effectiveness of CME programs, the hospital should strengthen communication regarding relevant regulations and continue to improve the quality of training content, with the aim of increasing physician satisfaction beyond the current average score of 3.82.

Acknowledgments: This study was funded by Thu Dau Mot University under project code DT.25.1-279 and conducted in collaboration with Binh Duong Provincial General Hospital.

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