

Exploring Competency-Based Medical Education Among Specialist Doctors in Malaysia

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Abstract: This research was done with the objective to explain the development process of medical specialist when they went through continuous learning process via the Continuing Professional Education (CPE) upon being recognized as a medical specialist. The main elements that are related to the expertise development will also be discussed in greater detail. This study presents the findings from in-depth interviews with medical specialists which explore the competency-based medical education in the context of continuing professional education. The data of this research had been collected by way of semi structured interview from 10 selected informants actively practicing medical specialists in various field of medical expertise. All data have been analysed using the ATLAS.ti. From the analysis, six themes have been identified in the expertise development process of a medical doctor. The themes relate to the competency that is required as a specialist in their respective areas. The themes are (i) patient care; (ii) medical knowledge; (iii) practice-based learning and improvement; (iv) system-based practice; (v) professionalism

and (vi) interpersonal skills and communication. The research outcome has also shown that the medical knowledge changes continuously. Therefore, it is the responsibility of all doctors to continuously learn and improve their knowledge from time to time to ensure that they are not left out, especially in the new medical knowledge areas.

Key-Words: Competency, Continuing Professional Education, Continuing Medical Education, Expertise Development, Learning, Specialist Doctor

1 Introduction

Learning is a process which consists of acquiring knowledge, gaining expertise, formation of new attitudes and developing personal confidence (Knowles, Holton & Swanson, 2005). This definition needs to be understood and appreciated by every level of the society in the effort to improve one's self, aligned with the change in technology, globalization and knowledge-based economy (Knowles, 1980). According to the cognitive believers, learning can be defined as an internal process which causes permanent change in attitude (Yang, 2004). Meanwhile, the behaviorist has the opinion that learning is a change in attitude, which is the way someone would act in a situation. From a physiological perspective, learning is a process that would help a person achieved self-perfection and self-worth (Knowles, 1990).

The medical profession is a field that is very important to the society and to every country (Riley & Riley, 2016). The advancement in the medical field and the ability to provide good medical and health services will create a nation with healthy people, physically and mentally, which would then positively impact society's development and the national economy.

Apart from the complexity that is involved in the development of expertise of a medical professional, both from a time taken and continuous process perspective, there is now additional pressure to increase the rate of development to meet the expertise requirements needed by a country (Chin, 2013). According to Chin (2013), there is a drastic increase in the

number of medical students because of a positive change in policy, as well as encouragement by the government that is aimed to ensure that no critical gaps exist in the profession. Every year, many new doctors enter the profession to fulfill the need of the country. All these doctors need to develop their expertise properly. This is not easily addressed because the number of available roles is not sufficient to cater for the high number of new doctors. The expertise development in the context of this research involved the continuous learning process from the time the doctor graduated from medical university until he retired from the profession. This continuous learning process is done via the Continuing Professional Education (CPE) to ensure that the doctors go through a proper process in developing their expertise before the professional recognition is given (Chin, 2013).

This research was done to explain the expertise development process of a specialist doctor when the doctor goes through the CPE. Apart from that, the main elements that are related to the expertise development will also be discussed in greater detail.

1.1 Adult Learning: Professional as a Student

Different societies and cultures have different understandings on the classification of an adult. In the context of adult learning process, an adult can be defined as an individual that sees himself as responsible for their own life. They are always referred to as non-traditional students, different from students who are in their 18-24 year old age

range (Bowden & Merrit, 1995). Adults have different needs, interests, and objectives in their life. Hence, adult students give unique challenges to the teaching profession. Not only they are older than their peers, they are also more mature because of their life and working experience.

Knowles (1980) perceives adult learning as andragogy, the art and science of helping adults learn, which prepares the foundation to understand the learning and teaching of adult students. His approach explains the process for the adult learners as well as to the adult teachers. Adults in this concept can self-direct, possess unlimited learning potentials and have learning needs that are always changing. Their current capability should be acknowledged in the learning process so that their learning will be more meaningful and have depth (Knowles, 1990). Therefore, an adult student coupled with their current knowledge would play a much more active role in the learning process and they would be able to learn better with a more comprehensive approach compared to younger students.

Knowles (1984) proposes 6 critical assumptions related to the adult learning process which are: (i) self-concept; (ii) experience; (iii) the readiness to learn; (iv) the orientation towards learning; (v) motivation to learn; and (vi) the need to know. In general, this is known as the learning principles of andragogy.

- Experience – an adult student has many different vast experiences which can be used and need to be used in the learning process. These experiences will form the knowledge base that the student will always refer to in learning something new. In fact, an adult student wants their experience to be acknowledged in the learning process. The reference to their experience and forming additional knowledge bases happen continuously because every time new knowledge is gained, it will be added to the adult student's learning experience and this makes them more mature as the time passes by.
- The Need to Learn – Adult students understand their life and their profession. Therefore, they require a reason before they learn something new, such as the advantages that they will gain by having that new knowledge. This is different from a conservative learning process, known as pedagogy, that is used by children who just accept whatever they are learning.
- Motivation to Learn – Adult students learn something new faster and easier if it is related to something that is of high priority to them. Internal factors have higher influence compared to external factors in influencing its priority for an adult. These internal factors are related to happiness with professional success and higher quality of life.
- Readiness to Learn – Not only does an adult student have the need to learn, but they also have readiness to learn. An adult student will always be ready to understand the need to learn something. For example, they understand that they need to learn about married life, but they will only be ready to learn about it when they have plans to get married.
- Orientation Towards Learning – An adult student will learn to achieve three objectives which are: livelihood, performing a duty, and solving a problem. They will learn if they understand and realise how that knowledge will help him achieve the three objectives.
- Self-Concept - Knowles, Holton and Swanson (2005) and Fidishun (2000) stress that an adult cannot be directed to do something that they do not want to do, and this understanding can also be used in the learning process. However, this is opposite to the current thinking of many adults because they were taught to depend on the teachers when they were in school or university. The individuals who are involved in the teaching process itself have to adapt to encourage the adults to become more responsible for

their learning process and for achieving their learning objectives.

In the context of this research, learning refers to the way the professional learns and work, the way the professional interacts, and the way to supervise the doctor's knowledge that they have during their service in the medical profession. Medical doctors are adult students who possess the determination to learn, continue learning, be ready to pick up more challenging responsibility, do self-reflection, as well as apply various sources of experiences, schools of thought and creativity in their work ethic. The learning activities of a doctor are no longer rigid, but full of various learning methods that require the doctor to be capable of using their experience, valuation, and assessment in solving problems.

1.2 Competency-Based Medical Education

In the process of developing the expertise of a doctor, there is a defined standard that the doctor must fulfill before they reach the level of expert or better known as specialist. This standard is known as Competency-Based Medical Education (CBME). International Competency-Based Medical Education (ICBME) is the party that has lead joint efforts to develop international competency for medical education, and has been working hard since 2009 to promote the standard in the world (Carraccio, Englander, Melle, Cate, Lockyer, Chan, Frank & Snell, 2016). CBME's role is to assist the medical administration to develop a strategy to assess the expertise of a doctor including continuous education in the medical profession. The effort to introduce CBME has been one of the effective ways to build the society's trust towards the medical and health profession (Carraccio et al., 2016). At the international level, CBME is accepted as the course framework for medical competency in Canada, as well as for the Accreditation Council for Graduate Medical Education, the Scottish Doctor Outcomes, and the Australian Curriculum Framework for junior doctors. CBME is a successful medical teaching system and has been accepted and practiced in many developed countries worldwide (Lal, 2015).

According to Cate (2014), CBME is defined as education for the medical professionals that include the specific competency that is required in the medical profession. Apart from that, a group of researchers, Frank, Snell, Cate, Holmboe, Carraccio, Swing, Harris, Glasgow, Campbell, Harden, Iobst, Donlin, Mungro, Denyse, Jonathan, Ivan, Teber, Dath, Martin, Kenneth (2010) state that CBME can also be defined as an approach to execute and assess a medical educational program using a course framework that has all the competency components. Based on this definition, it shows that CBME stresses the competency aspect in defining the expertise of a doctor. Competency refers to specific capability that enables a doctor to fulfill societal expectations (Lal, 2015). Frank et al. (2010) defines competency as the observational capability of a medical professional that combines different aspects of expertise such as knowledge, experience, values, and attitude. Since the competencies can be monitored, it is used to measure and assess a doctor to ensure there is development of competency in that particular doctor.

CBME comprises various competency elements. The American medical graduate body, which is also known as the American Council on Graduate Medical Education (ACGME), lists six main competencies in CBME: (i) patient care; (ii) medical knowledge; (iii) training based on learning and continuous improvement; (iv) system that is based on training; (v) professionalism; and (vi) communication and interpersonal skill. All of the above competencies are assessed in determining the development of specialist doctors. However, a group of researchers also mention specific elements that have to be prioritised in the execution of CBME among doctors. The group of researchers (Frank et al., 2010; Carraccio, Englander & Melle, 2015; Lal, 2015; Riley & Riley, 2016) state that there are four principles that have to be stressed in the execution of CBME. Frank et al. (2010) define them as: (i) Focus on the result of CBME - this means medical curriculum needs to ensure that the graduate is competent in all of the areas of

expertise that have been set; (ii) Focus on capability - medical curriculum must focus on skill and capability which must exist in a specialist doctor; (iii) Reduce training time – medical education should be improved by focusing not on the time spent by trainees in a specific unit but on the education received; and (iv) Promote excellence through student centres – medical education has to promote the importance of producing excellent students by having quality centres.

According to Riley & Riley (2016), in general, there are three elements that are being stressed in CBME which are: the training from the faculty, experience that is reflective, and professionalism. Training from the faculty itself reflects the expertise of the faculty to train the doctors. For example, the faculty has to stress the importance of external feedback as much as internal assessment on the doctor. Sometimes the faculty itself is not willing to provide negative comments to their trainee doctors even though the external assessment on the doctor was negative. Therefore, the training provided to these doctors by the faculty must be assessed in order to be transparent and honest, and needs to be taken seriously by the trainee doctors. Reflective skills refer to the skills that involve medical knowledge and assessment skills. The medical skills and expertise, especially the clinical skills, are critical skills that need to be taken seriously (Riley & Riley, 2016). Professionalism is also stressed in all aspects of CBME. The journey and knowledge of a medical professional is said to grow through their own personal experiences in the medical profession. Professionalism requires critical thinking, application of skills, emotional maturity and empathy. Empathy refers to building a relationship with the patient and at the same time executing the right medical practice (Riley & Riley, 2016).

Based on the discussion above, CBME is not only a guideline to define the expertise of a doctor, but it is also a guideline for the faculty administration to improve the educational system for the trainee doctors. However, from the time CBME was

introduced until today, it is not conclusive that with all the focus on medical education execution and training will actually produce doctors with caliber. There is still a lack of interest among researchers to study the effectiveness of CBME in developing the expertise of a doctor (Frank et al., 2010). Therefore, this research addresses a gap in past research to study in depth the various expertise development aspects of a doctor via the personal experience of a group of specialist doctors.

2 Methodology

The data in this research was gathered via the method of semi-structured interview with a group of informants consisting of specialist doctors that are currently serving in the private and government practice in Malaysia. The researcher has chosen the phenomenological qualitative method of study as the research method.

The method of choosing the informants was based on purposive sampling. In general, qualitative research was chosen because the informants have the capability and capacity to provide the information that is needed by using the interview method (Silverman, 2000). The research informants consist of ten specialist doctors from various specialization areas practicing in Malaysia. To ensure the anonymity of the informants, their identities are concealed by using nicknames. According to Silverman (2001), the research informants are chosen based on the criteria that has been determined and suitable with the research problem that is being scrutinized.

Therefore, the researcher decided that in-depth interviews were required in the area related to the learning process that contributes to the development of expertise of specialist doctors throughout their medical profession. The criteria that has been determined are as follows: (i) medical doctors that have received the necessary certification and standards to be a specialist; (ii) the informants are specialist doctors that have at

least one specialization area in the medical profession; (iii) the informants must be ready and must agree to voluntarily participate in this research. Effort has been made to identify specialist doctors that fulfil these criteria. The list of specialist doctors was obtained from the Malaysian Medical Association (MMA). From the list, the researcher started by contacting the potential informants and validating whether they are ready and keen to be the informants of this research. An authority letter to conduct the research contains background information on the research and its objective was sent to the selected potential informants. The researcher then chose the sample that agreed to cooperate to be interviewed and share their learning process throughout their medical profession career. The researcher pledged commitment to keep the interview in strict confidence and all information given would be for the purpose of this research.

The process to analyse the data begin with the researcher reading the interview transcript repeatedly. In each of the paragraphs in the transcript, the researcher ensured that the research question was answered accordingly. The researcher would then go through line by line the interview transcript to determine the data statements which were relevant to the research objectives. Notes were then taken and the data was categorized based on the research question guidelines.

For the purpose of analyzing the interview in a more structured and systematic way, the interview data was analyzed using software that is designed to analyse qualitative data namely Computer-Aided Qualitative Data Analysis Software (CAQDAS) which is ATLAS.ti version 7.5.15 (Friese, 2014; Konopasek, 2007). The software is suitable to be used to analyse qualitative data in multiple formats such as textual, graphical as well as other media. In this research, the ATLAS.ti was chosen because it is sufficient to achieve the objective of the research. This is because the software comes with a simple and easy user training system compared to other CAQDAS software in the market. Apart from

that, the researcher also acquired the license for ATLAS.ti version 7.5.15 to be used to analyse the data for research.

3 Results and Discussion

Table 1 shows the socio-demographic data of the informants that were interviewed. Informants consisted of specialist doctors from multiple specialization areas such as Sports Medicine, Family Medicine, Pediatrics and Immunology, Emergency and Trauma Medicine, Dentistry, Pathology, Orthopedics, Obstetrics and Gynaecology. The chosen informants were between the ages of 37 and 69 years old. Five of the informants were male, and the remaining 5 were female.

Participant	Gender	Age	Expertise
P1	Male	46	Sports Medicine
P2	Female	46	Family Medicine
P3	Male	69	Paediatrics and Immunology
P4	Male	44	Emergency Medicine and Trauma
P5	Female	43	Dentistry
P6	Male	60	Pathology
P7	Male	37	Orthopaedics
P8	Female	36	Obstetrics and Gynaecology
P9	Female	40	Pathology
P10	Female	57	Pathology (Histopathology)

From the analysis conducted, 6 themes were identified in the expertise development process of a medical doctor. The themes relate to the

competency that is required of a specialist in their respective areas. The themes are: (i) patient care; (ii) medical knowledge; (iii) practice-based learning and improvement; (iv) systems-based practice; (v) professionalism and (vi) interpersonal skills and communication. Table 2 shows the transcript area that has been chosen to represent each of the identified informants.

Themes	The Findings from the Interviews
1. Patient care	<p>Any views by the chemical pathologist would be very helpful in providing assistance to manage the patients. – P2</p> <p>Caring is very important. We show our empathy so that the patient would be calmer. – P3</p> <p>We must not let them worry. We should make the patient satisfied. – P4</p>
2. Medical knowledge	<p>It is because we learnt and passed the exam. Information of all diseases is always updated. That is why we need to get updated through journals or conferences. - P1</p> <p>We normally attended talks or conferences. Attending those programmes would help us freshen up our knowledge and get new information. – P2</p> <p>Every chemical pathologist would, at all times, update themselves with all the new knowledge pertaining to clinicals for the benefit of the patients and provide updates with lots of samples. – P3</p> <p>They will be exposed at random weekly, within a week about 2-3 times or more than 2-3 times a week, through continuous medical education.</p>

	<p>With this exposure, they will be getting the latest information including international levels of knowledge shared through published journals and articles. – P3</p> <p>Then we will also have continuous medical education...there will be special course like yearly updates of upper limb trauma – P4</p> <p>It will then begin with knowledge. One must understand in-depth, gather as much knowledge as possible about O&G (Obstetrics and Gynaecology) for example, that is the expertise – P8</p> <p>But, anyhow, if they want to work, they need to go through professional examination. They cannot work if they fail. – P9</p> <p>This expertise actually involves skills. No doubt one must have knowledge but must also have skills – P10</p>
3. Practice-based learning and improvement	<p>The best way for them to sustain their level would be with skills, yes, skills in their expertise. This will be achieved by way of sending them for training from some specific time to get not only from theory but also hands-on experience and knowledge. – P3</p> <p>Other ways of developing my skills would be joining other people's cases. It is because skills and knowledge would come from practice and personal practice...even if it is another person's case. I always offer myself to join in, even while in the university. There are always many difficult cases and usually the professor or consultant is going to do it. So,</p>

	<p>I usually joined them, get myself involved in...that is one point...that is one way to develop my skills. – P4</p> <p>Then number two, other than knowledge would be experience. Of course, one way to improve yourself is through experience. You want to improve yourself, you have to have knowledge and you also need to have experience. To me, both are important. – P5</p> <p>If clinical practice, let's say there's a case, like a big case, for example a hysterectomy. A hysterectomy is taking out the cervix. So, we go into the operation room, we learn...skills are numerous and you need to learn all of them and through hands-on practice. You need to learn from a teacher, master or mentor. – P8</p>
4. Systems based practice	<p>They will have to sit in a few specific committees where they will develop guidelines, policies, and not only update their knowledge but also implement that knowledge. – P3</p> <p>There are two types of master's programs, on-campus and off-campus. If on-campus, we need to be there most of the time, for the whole four years, we will be in the university. From year one, we will be exposed to professors, how to manage situations and everything. – P4</p> <p>Now its requirement is two years, because after completing the two years requirement, they will be automatically moved up to UD44 (the grade salary code). During our one year housemanship, we can do 3 major postings...we have exams during our master's, first part and second part. – P5</p>

	<p>While we were medical officers of O&G, we were also trained to be specialists, so we would be taught to make our own decisions. – P8</p>
5. Professionalism	<p>So, when training to become a specialist, it is also a training on how to make a decision. Therefore, whatever the problem is, orthopedic problems, we are supposed to know how to manage it. – P5</p> <p>All of these will shape the core knowledge of O&G and then develop the experience. The working experience will either be as a medical officer or specialist. – P8</p> <p>It's not what like other people said...at the end of the day, when we passed as a specialist, we would be a specialist either with the government or private, we hold the responsibility as a specialist with confidence and honesty...no cheating. – P8</p>
6. Interpersonal skills and communication	<p>A doctor also needs to talk to people, know how to calm the patient down in the situation where patients are sick and emotional. If a doctor doesn't know all these skills, one will not be able to consult the patients. Patients will lose confidence and run away. – P9</p> <p>Besides knowledge, we also need to learn inter-relationship skills. We need to know how to consult, to justify. So, talking to our patient...if we don't know how to talk or talk about irrelevant matters, the patient will lose confidence. They will not return to our hospital. They will be scared. – P9</p> <p>Being a medical student, if they don't want to go to the library to read books, that should not be the way. They must read</p>

	books, they must visit the patient, learn how to talk to the patient, and learn how to examine. – P9
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This research has provided clear and insightful information of how the Continuing Medical Education (CME) could help the doctors to be professional medical practitioners. CME consists of educational activities which serve to maintain, develop or increase the knowledge, skills and professional performance and relationships that a doctor uses to provide services for patients. Doctors will be required to achieve the set of competency level and expected to fulfill the criteria needed to be a specialist doctor. This research explains the competencies that have to be assessed in the development of a medical specialist. Based on the interviews conducted, there are six criteria (themes) which must be fulfilled in the development of a specialized medical professional as stated in Table 2.

The first criterion is patient care. Patient care describes the caring attitude that a doctor has to its patient. The outcome of the interview shows that the doctor’s opinion is very important to assist the patient in facing their medical situation. Normally, a patient is not worried about the physiology, pathology or pharmacology elements of their sickness but they are more concerned about the attitude of the doctor attending to them. Showing empathy would make the patient calm. Freedom from worry has a higher importance and would make the patient more satisfied compared to the capability of the doctor providing the actual treatment.

The second criterion is medical knowledge. Knowledge seems to be the most important competency and has to be acquired by a specialist doctor. A doctor must pass all the examinations that have been set by the Medical School with the approval of the Malaysian Medical Association (MMA) to ensure they achieve the minimum knowledge level that a specialist doctor must have. The medical knowledge is the center of the

assessment to recognize a doctor as a specialist in his area. The outcome of the interview shows that a doctor has to go through continuing medical education and has to pass all the exams that have been set by the university. It is also the main aspect for a doctor to become a specialist doctor. The research outcome has also shown that the medical knowledge changes continuously. Therefore, it is the responsibility of a doctor to continuously improve his knowledge from time to time to ensure that he is not left out, especially in the new medical knowledge areas. This practice is very important to a doctor who wants to be a specialist in a chosen field. In general, a doctor applies medical knowledge in their daily job routine. The doctor can change a complex scenario to a simple one based on their professional knowledge.

The third criterion is practice-based learning and improvement which means the training that is conducted to increase the doctor’s abilities. The training that the doctor goes through throughout the Continuous Medical Education (CME) needs to be taken seriously because it is one of the main criteria to be a successful doctor. Training would be very helpful for the doctor to enhance their experience and capabilities, especially in the clinical aspect. The CME of practice-based learning and improvement shows the ability to comprehend relevant information and a commitment to lifelong learning. The informants had stressed that the practical training would be important for the doctors to gain experience and expertise towards becoming a specialist. In clinical aspect, the doctor needs to understudy his mentor who is also a medical specialist, whom have great amount of experience in handling clinical cases. The informant also stressed out the importance of practicing all the theories learned during training. Such way could enhance the doctor’s experience as well as developing self-confidence for the doctor leading to successful career.

The fourth criterion would be the system-based practice which could help the doctor to be an expert in the chosen field. Such a system would

involve the assessment by the institution where the doctor needs to pass their clinical training in accordance to the specified period of time provided to them. System-based practice refers to all the processes in the health care system that operate to provide cost effective care to individual patients and populations. During the period of CME, doctors will be exposed with managing matters related to medical including developing and executing the medical policies in order to develop the specialization skills of the doctor. The doctors that attended the CME will not only be trained to manage the clinical issues but will also be trained to make good decision for his patients as well as for himself.

The fifth criterion is professionalism. From the interview, professionalism is defined as the capability of a doctor in rendering their services with full confident towards the patients with their sense of responsibility and honesty. The capability of the doctor in managing patient problems and issues would be seen as a yardstick of their professionalism. Medical professionalism is a set of values, behaviors and relationships that underpins the trust the public has in doctors. It is a belief where the group of medical practitioners declares to each other and the public towards the standards and ethical values they promise to deliver and uphold in their work. In return, the patients can expect a professional competency, attitude and consultancy from medical professionals. From the interviews, it was found that the experience of going through the medical learning process can develop professionalism to the doctors. Bhutto, Asif & Jawaid (2014) have outlined professionalism into six categories namely, (1) fulfill the need and welfare of others; (2) sense of responsibility; (3) excellence; (4) duty of a doctor; (5) integrity and honesty; and lastly (6) respect others.

The sixth criterion is interpersonal and communication skills with the patient. A doctor must know how to communicate with their patient, especially in explaining the patient's condition. Good communication will help the patient to be more relaxed and comfortable when

receiving treatment. Patients would react positively towards a doctor's capability and credibility if the doctor is concerned about the patient's well-being. Interpersonal skills and communications can be defined as the way doctor communicating with their patients. From the interview, it shows that informant had pointed out the way a doctor communicating in providing consultation to the patients. It was also showed that a doctor is not only being judged by his knowledge but also the way he communicates with the patients and populations.

Generally, the doctors must first get through the elementary process of becoming a doctor and that is from medical school. However, the learning process does not end there. Besides academic knowledge, doctors need to gain clinical experience by practicing it for some period of time. Doctors must also be prepared to attend to as many first-hand exposures as possible in order to gain more knowledge and experience. Upon completion of the process, only then will the doctor be recognized as a medical specialist in their respective field of medicine discipline. Since the medical areas are quickly improving and developing through a lot of laboratory findings and complicated cases, attending seminars and conferences as well as getting updated from the medical journals would be very important and helpful in order to gain more knowledge about medical development.

4 Conclusion

Medical practice is the principles of professional and high standards of competencies practice together with care and conduct that are expected to be maintained in the practitioner professional duty. Good medical practice requires every doctor to be professionally competent, honest and trustworthy. They must also perform consistently well, practice ethically, be an effective team player and take action if poor practice by a colleague places patients at unnecessary risk. They must treat patients' welfare as their first concern, politely and considerately, respect their dignity, making the right decision for the patients

and able to provide an understandable explanation to the patients clearly in terms that they can understand. In order to achieve that, the authority who governs the medical practitioners conducts and activities had outlined the steps for all doctors to adhere in order to arrive at the standard of medical specialists.

Attending a 5-year medical study at universities or medical school only provides students with medical graduate status. Having completed few years of housemanship, followed by attending masters' programs and few more years of working experience, the doctor can be recognized as medical specialists. However, medical knowledge grows very fast with new findings and developments of sickness, injuries and life-taking illness. All the knowledge obtained from the university can only lasted 5 years upon graduated. The doctors need to attend seminars and conferences to update themselves with lots of latest information around the medical world. Reading medical journals could help the continuous learning process of the doctors and provide updates.

This continuous learning process is done via the Continuing Professional Education (CPE). It is to ensure the doctors able to get a proper process of developing their expertise before the professional recognition is given. Even though age and working commitment would be the biggest hindrance for off-campus specialist candidates, they do not have ample choice but to carry on with the learning process. CPE were designed systematically and structurally to cater the daily life of the doctors.

Competency-Based Medical Education (CBME) is a standard that all doctors must fulfill before they are recognized as specialist. CBME role is the systematic way of assessing the expertise of a doctor including continuous education in the medical profession. CBME has been a successful medical teaching system and has been accepted and practiced in many developed countries worldwide. This research has revealed that

Continuing Medical Education (CME) could help the doctors to be a professional medical practitioner. It is an educational activity to maintain, develop or increase the knowledge, skills and professional performance to provide best services for patients.

It can be concluded that the medical specialists learning process and activities will never end as long as the doctors are still practicing. With the support of the continuous learning vehicles such as CBME, CPE and CME supported with periodic examinations and assessments, the professionalism of the medical specialist could be monitored and improved to ensure a safe, confident and trustworthy services provided by the doctors to their patients.

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