To What Extent Does Continuing Professional Education (CPE) and Continuing Medical Education (CME) Affect Physicians Practice?

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The purpose of this paper is to explore to what extent is there an understanding among physicians as to how continuing professional education (CPE) and Continuing Medical Education (CME) affect physicians practice? To address the question, focus groups were used to begin a process of identifying the components within each type of education so that further research can be done to address how physicians learn and whether competence can be influenced by continuing education.

Key Words: Continuing Education, Learning, Performance

Problem Statement

In a profession such as medicine, it is expected that physicians are competent to treat patients. In order to be competent, it is expected that physicians will continue to update their knowledge and skills. The process used by physicians to update their knowledge is through their participating in continuing medical education (CME). This notion was confirmed in a study that (Cervero, 1981) conducted in which physicians were asked what was the main reason they attended CME activities? Most respondents stated that it was to learn content that was relevant to their practice in order to treat their patient's problems. Because physicians believe that they need relevant information to treat their patients this supports (Jennett and Swanson, 1994) belief that physicians must engage in the process of lifelong learning. It is interesting to note that lifelong learning for a physician can occur over a span of 30 years. Since Cervero's study in 1981 the practice of medicine has changed from one of strictly treating the clinical conditions of patients to what (Chan, 2002) has noted in the past decade, physician education has expanded beyond strictly clinical content areas. The content areas that physicians are now engaging in are to develop new skills in the areas of management, teaching, and communications, all of which are non-clinical.

Therefore, there appears to be a blurring of the lines as to what it means to provide education to physicians. The traditional view of CME is potentially expanding with the emergence of continuing professional education (CPE) in to its realm. To add to the complexity of defining what is physician education and why physicians participate in it, one must consider the regulatory requirements from state licensing boards, which mandate that physicians must complete a certain number of credits in a defined period of time in order to maintain licensure. According to the American Medical Association (2002), 35 out of the 50 states mandate that physicians obtain a predetermined number of CME credits. In some instances, states are also mandating specific continuing medical education content areas which physicians must participate in to retain their license.

Physicians are somewhat in a quandary, on one hand they participate in continuing medical education to ensure their continued competence to practice effectively, and on the other hand they are participating in continuing medical education in many instances to maintain their license. These two forces are pushing and pulling physicians into making decisions as to how to meet both forces successfully based on their limited time available to fulfill these requirements. Also, there are economic considerations for physicians to consider when deciding to pursue their continuing education, such as the amount of time away from practice, which potentially means that physicians are not able to see patients and therefore are not able to charge for services rendered.

From these perspectives the problem that needs to be addressed is to what extent is there a shared understanding among physicians as to the role that Continuing Medical Education (CME) and Continuing Professional Education (CPE) have and what affect it has on physicians practice? Cervero (1989) describes the purpose of CPE, "to help professionals provide higher quality service to clients by improving their knowledge, competence, or performance" (p. 22). The solution that is being sought for this problem is to begin a process of consensus building among physicians in order to identify a common understanding as to what are the roles of CME and CPE in improving physician practice. In order discover the answer to this question a pilot study has been undertaken.

Theoretical Framework

In order to have an understanding of the affect that CME and CPE have on physicians practice, it is advisable to define the terms within their respective literatures to determine if there may be a common thread from which we can use to further develop an understanding of the two concepts and whether or not there is cross translation. The first question to ask is why physicians pursue education in the first place? The second question to ask is what physicians see as the role of CPE in their practice.

From the CME literature, we know the following, Richards (1984) views education as an event that allows learning to occur, and that learning is the process that causes a change in something, such as practice. Richards also believes that there must be specific information that the individual wants to learn, which was not available at the time a problem or a situation arose. This statement supports Campbell, Parboosingh, Gondocz, Babitskaya, & Pharm (1999) who believe that there must be an unknown that causes physicians to engage in learning activities that change practice. Richards believes that in order for the learning to be successful, the learner must be in pursuit of a goal, such as improving practice or learning more about a particular procedure.

From the CPE literature Daley (2001) and Fenwick (2000) both of whom describe new knowledge as a process that is achieved when a person takes new information and applies it to current situations which is then based upon how that new knowledge fits into their own experiences. Dirkx, Gilley, and Maycunich Gilley (2004) note that CPE's major focus is on individual learning and the subsequent change. Mezirow (1997) describes what occurs to a person who is trying to construct new knowledge. The process in developing new knowledge is first to be critically reflective of what was the prior understanding of the same knowledge, and once that is understood, then a person can begin the process of adding the new knowledge and applying it in a new way. Chan (2002) describes CPE as a process in which physicians are involved in livelong learning in order to improve the quality of their practice. Chan also suggests that to be involved in lifelong learning, physicians must be involved in a process of continuous reflection of their practice. Chan attempts to merge the ideas of CME and CPE within the same contextual framework.

The theoretical framework of both CME and CPE have three similar themes; one, is the constructing of new knowledge is based on something that was unknown at the time; two, that the result of obtaining new knowledge is the likelihood that a physician will change practice; and three, that the process of learning is a lifelong pursuit, whether it is done voluntarily or through regulatory requirements. So based on this theoretical framework, what research questions can we ask to address our problem of what extent is there a shared understanding among physicians as to the role that Continuing Medical Education (CME) and Continuing Professional Education (CPE) have and what affect it has of physicians practice.

Research Questions

1. "What does competence mean to the medical profession?"
2. "If a change in practice was made, was it the result of a specific type of educational activity?"
3. "Can CME influence the competence of physician behavior?"
4. "What is the distinction between CME and CPE?"
5. "Can CME influence competence in physician behavior?"

In order to develop these questions, a literature search was done on the topic to determine what has been previously written. Literature was found to support the foundation by which the research questions were developed. The first question; "What does competence mean to the medical profession?" is drawn from an article written by Bennett, Davis, Easterling, Friedmann, Green, Koeppen, Mazmanian, and Waxman (2000) who believe that society has labeled professionals as competent, but the question remains how does a professional develop competence and how can competence be measured? The second research question is "If a change in practice was made, was it the result of a specific type of educational activity?" This question is supported by the work of Evans, Ali, Singleton, Nolan, and Bahrami (2002) and Chan (2002). Evans Ali, Singleton, Nolan, and Bahrami indicate that it is a personal impression of the existence of a "gap" in knowledge that is often times used to determine the needs of a person in practice; whereas, Chan suggests that if the right educational design is used in the educational activity and as a result of this activity there is a positive outcome, then there is the likelihood that a change in practice will occur, which will benefit both the patient and the physician based on that intervention. The third research question is, "Can CME influence the competence of physician behavior?" is derived from Cervero's (1981) study, which supports the notion that competence and performance are linked together, and when the two do not connect this becomes a motivating factor for many to seek out information to close the "gap" between the two in order to practice

effectively. The fourth question asked is, "What is the distinction between CME and CPD?" Eraut (2001) suggests through CPD events, especially those that are offered away from the practice will begin to perhaps make the physician aware of what future education is needed in order to continually improve his/her practice. The final question asked is, "Can CME influence competence in physician behavior?" Bennett, Davis, Easterling, Friedmann, Green, Koeppen, Mazmanian, and Waxman believe that research must be conducted in how and why physicians learn. The research that needs to be done must be systematic to allow practitioners and researchers to generate and apply new knowledge about CPD, and how we can select the best methods to change the physicians' behaviors and ultimately affect patient care.

Methodology and Limitations

In order to determine what extent there is a shared understanding among physicians as to the role that Continuing Medical Education (CME) and Continuing Professional Education (CPE) have and what affect it has on physicians practice, it was thought that using focus groups as the methodology for this study would lend itself nicely to explore my question and determine if there are shared understandings among physicians. According to Shank (2002), "Focus groups are most useful for getting at complex underlying notions in a setting where the sharing of experiences can help guide the other participants to greater awareness and participation" (p. 45). The focus groups used for this study and the data that was gathered, analyzed and reported are a part of a larger research agenda, which is interested in the role CME plays in determining the level of competence of physicians.

In order to collect data, 16 volunteer physicians participated in two focus groups. The population was selected because of the perspective they would bring to the focus groups due to their involvement in continuing medical education (CME) both as participants, and as leaders in the design, implementation, evaluation, and management of CME activities for physicians for their respective constituents. The participants were selected because of a mutual past association with the researcher in an organization involved in the accreditation of continuing medical education. The first focus group was convened in a face-to-face encounter. A person external to the focus group assisted the researcher in taking descriptive notes. The other focus group was convened through a conference call. For this focus group encounter there was no external person to assist the researcher in taking descriptive notes. The researcher supervised the conference call. The reason for the two different approaches in conducting the focus groups was the availability of participants. Not everyone was available for the face-to-face encounter. While the researcher believed using two different approaches should not affect the findings and the results, she was aware that there was the possibility that the findings were affected because the researcher missed potential environmental cues or body language, which could not be seen on the conference call. Both focus groups were recorded by audiotape for the purposes of transcription, and that permission of the participants was secured prior to recording. Each focus group was scheduled for a 90-minute session. These groups provided data based on a series of questions that were described earlier in this paper. The researcher used an outside person to transcribe the audiotape recordings of each group in order that the data analysis could be conducted.

After the transcription was completed there was a constant comparison of the data reported by each of the groups and within each of the groups in order to identify and further explore the initial coding strands, which would then lead to developing categories of themes, sub-themes, and overarching. Merriam (2002) defines constant comparison as "comparing incidents with emerging conceptual categories, and reducing similar categories into a smaller number of highly conceptual categories, and an overall framework or substantive theory develops" (p. 143).

It would be appropriate to do member checks as a method to ensure that the data collected is valid and accurate. Merriam (2002) described this as the process by which the researcher asks participants of the study to determine if the tentative interpretative findings "ring true" to them, and if not what suggestions could be made to better capture their feelings.

The limitations of this study are in part due to limited access the researcher had to physicians for this initial pilot study. Ideally, the number of physicians participating in the focus groups should have been larger to provide opportunity for more views to be heard to either support or contradict what the participants were saying. By having only two groups, it limits the constant comparison that can be done between groups to determine if the strands that were identified were consistent among the members of the groups. As was mentioned earlier this pilot study is part of a larger research agenda and will provide data for subsequent survey tools to gather data.

Results and Findings

The results of the focus group process are being presented in what Krueger (1988) refers to as the interpretative model. This particular model is one of three ways in which data from a focus group can be reported. The

interpretative model uses a summary description as its method to describe what the results were for each question asked. Also, this method allows the researcher to provide selected quotes from the participants to illustrate what was said during the focus group sessions. This method provides a nice way of seeing how the researcher has interpreted the comments along with the actual comments. The five interview questions that were asked of the two focus groups were in fact the research questions as described earlier. It did not seem necessary to develop different interview questions to ask the participants. The researcher wanted to know what the participants' thoughts were on the various topics raised in each research question. As was described in the methodology section, a constant comparative method was used between the two groups and within each of the groups to determine the results.

Question One - What does competence mean to the medical profession?

A majority of the comments made by the participants centered on having the appropriate knowledge to treat patients effectively. The comments went on to further define knowledge as knowing the current literature in one's specialty and keeping up with that information. Being able to interpret new data in order to maintain clinical skills was also an important aspect of what competence means to physicians. What was interesting, is that many of the participants also thought that to be competent was not limited to just the clinical aspects of their practice; but it also included the professional aspects of their practice, such as being an effective communicator with patients and their families, and by working in a team environment through systems that have been established for their practice. It was important to many of the participants to have competence in both the clinical and professional aspects of practice, and that these sets of skills together are what will make a physician more effective.

> "Integrating the new data to make sure that my level of competency gets back to or stays at a level that I feel comfortable with."
> "Having requisite knowledge to provide safe and effective care in accordance with either the latest or at least, the acceptable standard [of care]."
> "Competence means not only having medical skills and clinical skills, but also recognizing when you may not be correct."

Question two - Think of a time when you participated in a CME activity and as a result, you made a change in your practice; what was the type of educational activity that you participate in?

The question was asked to determine if there was any consensus among the participants that a particular educational format appeared to be one that caused physicians to change his/her practice. The participants did state the types of educational formats or methodologies in which they like to learn. These included having an opportunity to do hands-on training, participating in a lecture that has an opportunity for questions and answers with the faculty member, and the use of simulators to be able to practice newly acquired skills. What was of interest was the fact that participants wanted to describe the rationale as to why their practice did change based on the educational encounter they experienced.

The comments centered on identifying the need that one has in his or her practice. The participants noted the importance of having opportunities for discussion, and that there be a period for questions and answers, which can be done with colleagues in attendance. Several participants talked about the readiness to learn and then to change practice as a result of new knowledge. A related topic was that of the timeliness of the information with respect to implementing the new information into current practice because of a problem one was currently involved in. Also the participants thought that it was important to match the learner's needs with the right faculty, who has the right content, and who has the right skills to deliver the information to the audience. It was felt that this combination may cause a moment in which a physician may change his/her practice because of what was experienced.

> "Sometimes, it's just a throw away comment that someone just said that probably wasn't even part of the planned curriculum [which causes a change in practice]."
> "It was one of those "a-ha" moments."
> "If you have a patient with a problem and you attend a lecture that day, or even greet someone in the hallway to discuss it; you then are able to go back and take care of the problem the next day [because of what was learned]."

Question Three - What is the distinction between CME and CPD?

The participants did not see the terms of CME and CPD as different, but as synergistic. The participants acknowledged that medical education addresses physicians clinical and technical skills, and that all other areas of physician practice, such as professionalism, communications skills, systems based practice are all examples of what

defines CPD. The participants discussed the issue of participating in education for the purposes of getting CME credit in order to maintain their license. The participants saw this as acquiring "seat time" rather than focusing on lifelong learning itself. They thought because of the culture of medicine, CME devalues the importance of CPD in assisting physicians to be effective. The participants saw the value in both CME and CPD and thought there will be a convergence of the two concepts into one eventually.

> "I think continuing professional development also has as one of its goals to be self-perpetuating, as opposed to [learning] one block of medical knowledge."
> "[Learning] gets corrupted when the carrot is not the learning that is worth changing or improving for, but it's about getting the credit so you can satisfy your state licensing authority."
> "There are all these pieces of different kinds of learning, and that we sell ourselves short by what we call it, does it have to be called CME? It's all a [part] of this spectrum of professional development and continued learning."

Question Four - What other words besides competence could be used to describe or capture a physician's ability to care for patients?

This question was somewhat difficult for the participants to answer because they could not articulate a word to describe what they meant; so many of the participants concentrated on defining the concept of competence. Many participants indicated that competence meant meeting a minimum level or standard; but they also do not want to believe that is how we train physicians coming into practice. Some believe competence should be the gold standard as to the level a physician should practice at. Others thought competence should be that physicians have the best clinical skills possible. Others argued that competence is in the eye of the beholder, and that there is variability among physicians not only within the same hospitals, but also within different regions of the country. Someone mentioned that they are not worried about defining competency, but are more concerned in defining what was incompetence.

> "Someone who's got the clinical skills to get me well in the right manner and at the right time."
> "I think it's a minimal standard. I think it's probably not what our expectations of physicians or program directors would be."
> "You can be competent in certain areas, but not others."
> "One of the reasons why evidence-based medicine has evolved and has been stressed the way it has is because of the variance of physician practice."

Question Five - Can CME Influence Competence in Physician Behavior?

After asking the question, "Can CME Influence Competence in Physician Behavior?" the participants gave a resounding yes, but with some caveats. The participants thought for CME to influence competence it must be based on an actual need with the opportunity to obtain the appropriate education to meet that need. The comment that was heard repeatedly was the fact that physicians must be involved in lifelong learning in order to keep up with new developments. The participants thought lifelong learning was critical in order to maintain competence. The participants thought that in order to actively participate in lifelong learning, there has to be a process of identifying gaps in knowledge. The participants mentioned a number of ways that this can be achieved. For example, physicians can have their clinical outcomes measured to see if they are meeting identified acceptable practices, or to offer physicians an opportunity to participate in some form of self-assessment tool. The participants did voice some concerns while answering this question. The negative comments made were done so in the context of regulatory and societal issues that physicians face. The participants thought that the requirement of CME credits appeared to be the only motivators for some physicians. Some of the participants suggested that the physicians that do not really need the education (credits) are the ones seen at grand rounds week after week, and the ones that need to be involved in education are not engaged.

> "You can't improve what you don't measure."
> "The vast majority of physicians believes in it [lifelong learning] and actually lives by it, but there are others that have to be persuaded, otherwise they probably would not believe in it."
> There are a lot of forces at play and CME may be a vehicle, but its outcomes, its competency, that's important to physicians.

Themes

As a result of analyzing the data and doing constant comparison several themes emerged. The first theme was that physicians need to keep current with clinical and non-clinical skills. The second theme was the importance of being a competent physician, but what does that really mean? The third theme was that physicians need to be engaged in lifelong learning. The final theme was that CME and CPE should be based on needs, not collecting seat time or credits.

What do the themes tell us about what physicians think about the extent to which Continuing Professional Education (CPE) and Continuing Medical Education (CME) affect physicians practice? They begin to tell us that physicians want to willingly use the educational concepts and not the regulatory requirements of CME and CPE to serve as their vehicle to drive them towards the necessary knowledge or skills in order to be an effective practitioners; and the road that the vehicle of CME and CPE will use is that of lifelong learning. Ultimately, it is lifelong learning that will help facilitate physician's competence in their practice.

Conclusions and Recommendations

As a result of the participants in the focus groups sharing their thoughts and views on whether there is a connection between continuing medical education and physician competence the answer is yes. The yes is however stated as a guarded statement. It is stated with the notion that the groundwork still needs to be laid in which the environment and the regulatory requirements will accommodate the physicians' clinical and professional needs, and will support and foster lifelong learning.

Physicians philosophically must embrace the need for lifelong learning, and this enculturation begins with the formal training physicians receive in medical school, which then continues through their residency programs. There needs to be an emphasis even when the formal training is done that learning more about ones practice does not stop. Physicians need to recognize that learning occurs in all types of settings and formats. It does not always have to be in a formal manner. It can be done informally.

It should be noted that there are "regulatory bodies" such the Accreditation Council for Graduate Medical Education (ACGME), the Accreditation Council for Continuing Medical Education (ACCME), and the medical specialty boards that have or are building systems in which physicians and organizations are rewarded for promoting lifelong learning and the demonstration of competence of physicians. Physicians must not look at learning as a chore or something that they are mandated to do in order to maintain their medical license, but that it is an important aspect of their professional life to ensure that they are continuing to practice in an effective way and that the patients benefit.

Some of the recommendations that the participants of the focus groups provided when asked what are five things that professionals involved in administering continuing professional education and continuing medical education programs need to considered when thinking about how they can assist physicians in lifelong learning and maintaining their competence, the following items were offered as suggestions.

1. Create opportunities for self-directed assessments that can help physicians identify needs or gaps in practice.
2. Learn what motivates physicians to learn; is it their own curiosity, or is it to meet the needs of their patients, or is it something that has not been expressed.
3. Provide more opportunities for peer-to-peer interaction.
4. Identify what are the roadblocks that prevent physicians from either accessing the education they need, or the ability to implement changes in practice.
5. Be willing to customize methodologies to address learners' needs.

How this Research Contributes to New Knowledge of HRD/CPD

As professionals in HRD and CPD, we know that we have struggled with issues such as what does lifelong learning and competence mean. We know that there are political, social, and economic issues that affect when a professional decides to engage in learning. What this research hopefully begins to do is to open up a dialogue as to what the learners themselves think about learning and about competence, and how the two are linked. The research provided in this paper gives practitioners concrete examples of potential projects, which they and learners can partner in with respect to facilitating a process of lifelong learning and developing competence, and to find out its true meaning.

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