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Pathway of Continuous Professional Development Among Physiotherapists: A Qualitative Study

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ABSTRACT

Continuous professional development (CPD) has gained prominence in the last decade to meet improved self-development and health care services among health professionals. Being practitioners serving clients in health care, therefore, necessitates the importance of the physiotherapist's participation in activities of CPD. This paper aims to identify how physiotherapists view CPD, barriers to its progress and its impact on healthcare practice. This is a qualitative study with one-to-one interview sessions involving open-ended questions to facilitate free flow of idea that are rich with information. Twenty-two physiotherapist (17 females and 5 males) participated. Four main themes were generated following analysis: (i) comprehension of what is CPD (ii) outcome of CPD (iii) barriers to undertaking CPD and (iv) strategies to improve participation in CPD. Further sub-themes were generated from the themes suggestive of physiotherapists' awareness and concerns related to CPD activities and problems encountered when embarking on CPD participation. In conclusion, physiotherapists should recognise the importance of participation in CPD activities either for self-development or to provide effective health care services. The main barrier to CPD activities that was identified was a support system that facilitates enhancement in such activities. This has major implication such as mandatory participation in CPD among staff and for managers to ensure that an effective mechanism is in place such as funding, schedule events and moral support.

Keywords: Barriers, continuous professional development, clinical competency, perception, physiotherapist, strategies

INTRODUCTION

Continuous professional development (CPD) has evolved as an important tool in improving the physiotherapist's knowledge regarding patient's health (Brown *et al*., 2002). It is a process of learning to keep up to date with current practices in health care services (French & Dowds, 2008). The vast media

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explosion has provided patients with knowledge of expansion of health care services that are of high quality. The maintenance and improvement of the health professional's knowledge, practical skill and personal qualities are necessary to meet current patient demand of good health care services (Aris *et al*., 2010).

In physiotherapy, CPD includes areas of personal and professional development that begins with undergraduate education (Yeomans, 1995). CPD activities can occur on the job through day-to-day experiences, performance reviews, journal clubs, peer discussion, in-service training, critical reading and personal reflection (Blake & Cooney, 2000). Clinical supervision, lecturing, clinical teaching, writing reports, significant incident analysis and research are identified as other CPD activities (Chartered Society of Physiotherapy, 2005). Among the many types of CPD activity, reflective practice or portfolio is the most effective way to meet CPD goals (French & Dowds, 2008).The written work during reflection can benefit physiotherapists when reflecting on their past experiences and learning from them (Sturrock & Lennie, 2012).

In most professions, activities of CPD are seen as an instrument for professional development to specialisations and maintenance of high-quality services (Cole, 2000). Similarly, in Malaysia physiotherapists are responsible to provide better management for patient care, and this was observed to be the strongest motivating factor for undertaking CPD activities. The awareness of the importance of updating knowledge, improving competency and collegial support can encourage heatlh care professionals to involve themselves in CPD activities (French & Dowds, 2008). It is necessary for managers to encourage their staff (Adanu, 2007) as governmental bodies under the Ministry of Health make it mandatory to be involved in CPD activities or as a criterion for promotion (Aris *et al*., 2010). It is believed that through participation in CPD, healthcare professionals would improve their practice and clinical reasoning when deciding priorities in patient care (Ahuja, 2011).

Since CPD in most professions is a criterion for professional development, it would be advantageous to identify among physiotherapists the reasons for their participation in CPD activities, the barriers as well as its impact on their practice. Such findings are justifiable as no previous studies have been carried out that can be used to look into the problems encountered in the local context to improve practice. These findings can also provide suggestions to higher authorities and policy makers on measures to take for improved participation in CPD activities in the future among staff.

MATERIALS AND METHODS

Design

This is a qualitative study through semi-structured interviews (Levy, 2006) providing an in-depth understanding of personal thoughts and individual experiences (Ryan *et al*., 2007). A phenomenological approach was chosen rather than the close-ended questionnaire (Bolton 2002) to understand the experiences of the physiotherapists as phenomena (Hancock, 1998). Purposive sampling was chosen to elicit the true experiences of the participants and to prevent data pollution and biases. The interview session was held in Kuala Lumpur during a workshop on "Future Direction of Physiotherapists" funded by the Ministry of Higher Education (NNP-087).

Participants

The participants involved in the study came mainly from West Malaysia, both from the academic sector (5) as well as practice -- clinical physiotherapists working in both public (12) and private hospitals (5). The workshop was held over three days. These 22 physiotherapists (17 females and 5 males) participated in a one-to-one semi-structured interview lasting between 30 and 45 minutes with10 participants interviewed on each day of the workshop. Their mean age was 43 years. English was chosen as the medium of communication during the interview sessions. A maximum variation sample was chosen to ensure maximum diversity of the sampling group as it represented the different experiences and perception of physiotherapists in the country (Gunn & Goding, 2009). The characteristics of the maximum variation sampling included physiotherapists working more than 3 years either in government or private hospitals, full-time staff as physiotherapists and representatives from both academic institutions as well as clinicians from various hospitals throughout the country.

Ethical Consideration

Permission for this study was obtained from the Ethics Committee of a government university. All of the research materials were handled exclusively by the first researcher and no names were associated with the final written materials.

Procedure of Study

A pilot semi-structured interview session was initially carried out among the interviewers to familiarise themselves with possible questions raised during the interview sessions that lasted 30 to 45 minutes. Four interviewers underwent training to ensure that the interview sessions would be consistent among the interviewers. Each interviewer was given guidelines and could leave the guidelines whenever appropriate (Cohen & Crabtree, 2006). The purpose of this pilot interview was to expose the interviewers with the interview process and to verify the interview questions. This would enable them to comprehend the issues under discussion and carry out the interviews within the available time period (Bradford, 2011). The interview questions were open-ended to facilitate free flow of ideas to generate data that was rich with information (Kurasaki, 2000).

Prior consent was obtained from the participants and an explaination was done regarding the objectives of study. Each participant was then interviewed and the interview sessions recorded on audiotape to ensure accuracy of the data collected. The interview was done the responses reached saturation, which is central to qualitative sampling. Interview sessions was done in a quiet room carried out by a trained interviewer to avoid disturbance and noise. There were 4 trained interviewers and each of them was given the task to interview only 5 to 6 participants. During the transcription process, the subject's name and other information related to the subjects was blinded by the researcher.

Data Analysis

The interview audiotapes were transcribed into words following a standardised set of typing procedure (Kurasaki, 2000). The transcript was read several times to ensure understanding of its content and the codes were assigned to the text segments. To aid in coding and retrieval of data, computer-based qualitative analysis software (CQDAS) Nvivo 9 was used. The advantage of using NVivo version 9 software is its ability to do sophisticated data coding (Levy, 2006). It was more efficient in processing the grouping of data that was further categorised (Ping, 2008). Each interview transcript was converted into rich text file and imported into Nvivo.

Validity and Reliability

To enhance reliability, the first text was coded independently by the first author and a second coder (Miles & Huberman, 1994). Codes were compared, differences in opinion were discussed, and if necessary, codes were changed. Code checking with the second coder was performed for approximately one fifth of the second text. The third and fourth texts were coded by the first author. For the text that was coded by two coders, the same codes were applied by both most of the time and a few differences were observed in the interpretation that required discussion; the differences were subsequently resolved (Schreiber, 2009). To increase the study's credibility, member validation was performed (Bryman, 2008). These were senior staff who was not involved in the the process of data collection but acted as moderator to agree on the themes generated in the findings. Following this, the participants were invited to react to the accuracy and completeness of the preliminary findings through e-mail (Chioncel *et al*., 2003) and given one week to provide feedback. This validation process did not lead to any changes.

RESULTS

Four main themes were generated following analysis: (1) understanding of CPD activities (2) outcomes of CPD (3) barriers undertaking CPD and (4) strategies to improve participation in CPD. Sub-themes were identified further under the main themes to provide broader perspective of the physiotherapist's perception of CPD activities (Table 1).

TABLE 1: Knowledge and Barriers to Continuous Professional Development Among Physiotherapists

Theme	Sub-themes	Number of participants	Percentage (%)
Understanding of CPD	The process of lifelong learning	15	31
	Keep up to date	13	27
	Towards specialisation	10	21
	Involvement in formal or informal activities	10	21
Outcome of CPD	Knowledge exploration	18	35
	Clinical competency	14	27
	Developing self-development	10	20
	Acknowledgement	9	18

TABLE 1 : (Cont.)

Barriers to undertaking CPD	Financial problems	14	32
	Demanding workload	11	26
	Staff insufficiency	11	26
	Distance	7	16
Strategies to improve participation in CPD	Organisational role	15	32
	Relevancy of CPD activities	10	22
	Cost efficient	10	22
	Well trained coordinator	11	24

Theme 1: Understanding CPD

(i) Process of lifelong learning

All the participants had a clear understanding of the term CPD. However, there were differences in definition based on individual experience of previous CPD activities. Some highlighted that CPD was a process of lifelong learning, which is a continuous process of upgrading and maintaining professional knowledge and skills towards self-development. It was regarded as a platform to gain promotion and an avenue to hold better positions. It was emphasised that the physiotherapists could improve their skills and knowledge for direct patient-care capabilities through CPD programmes.

> *CPD means on-going education so that physiotherapist can learn throughout their working life for self-development and earned paper qualification. With CPD, they can update their knowledge, and skills in preparation of giving better treatment to patient care. They can gain monetary rewards and promotion if they followed through structures CPD programs like postgraduate studies. (Participant 7)*

> *I consider CPD as any activity that involves improvement in the individual's knowledge above the basic knowledge. (Participant 6)*

(ii) Keeping up-to-date

It was perceived that through CPD, their knowledge can be brought up-to-date and upgraded to different levels, for example, knowledge on patient management, clinical skills, research development and advancement of physiotherapy practice.

> *We have to know what physiotherapists in other countries are doing to ensure we are also up-to-date with the latest trend of patient-care management through CPD activities…this information can be either obtained locally or internationally. Through self-development, attending both short courses and postgraduate studies can enhance our professional knowledge, attribute and physiotherapy practice in clinical skills or research methods. (Participant 3)*

(iii) Towards specialisation

Continuous professional development is a means of improving and gaining knowledge for areas of specialisation.

> *Every health profession needs to involve in upgraded courses related to specialisation for in-depth understanding of an area of specialisation so that they can become more confident to apply new theories or concepts. (Participant 10)*

> *CPD activities, for novices like us, include training in a specialized area, for example, musculoskeletal, spinal and critical care (ICU). (Participant 4)*

B: Types of CPD commonly carried out in physiotherapy departments

There were different types of CPD activity identified that were either formal or informal activities related to the health profession.

(i) Formal activities

Attending conferences, seminars, workshops and the structured activities carried out are considered the formal activities of CPD. These activities were carried out monthly or twice per week to provide an opportunity to share knowledge with peers following attendance at courses or conferences.

> *In our CME, the staffs which attended courses are required to share with other staff members and present what they have learnt...even though it might be just 50 % of the material that they learnt. This can even be a technique that we had previously learnt." (Participant 17)*

> *The other type of CPD in my department is when someone carries out certain research projects and presents it to their other colleagues to look into the effectiveness of an intervention programme. In this case, we tend to work with other health personnels who have the expert knowledge in research to guide us through the research process. (Participant 6)*

(ii) Informal activities

The informal activities include regular discussion among staff and students, for example, in a case study presentation by students or a process of reviewing an article. The participants agreed that in the discussions process, there was learning taking place between the students, young graduates and the senior staff.

> *In our CPD activities weekly, during student case study presentation, everyone benefited from the sessions -- students, young graduates, senior therapists and lecturers especially during the questions-and-answer sessions. (Participant 11)*

I realized that my knowledge from the previous schools of thought is no more relevant... the CPD sessions with the students make me aware of new knowledge… that I was not aware of. (Participant 5)

Theme 2: Outcome of CPD

(i) Knowledge exploration

The participants recognised the benefits of participating in CPD activities. They identified that the learning process includes learning from one another and refreshing previously gained knowledge.

…in CPD, we can learn the latest techniques. CPD is a platform for sharing our experiences, among other staffs who attended courses. So when we sent one staff to attend the courses, she is expected to share her knowledge with us when she comes back to department. (Participant12)

(ii) Clinical competency

They acknowledged that CPD activities could improve their competency and clinical skills, especially through workshops given by foreign guest speakers who presented the latest updates with new skills in patient management.

Especially when there are new treatment techniques, I will try to apply such treatment techniques to patients who come to the department for physiotherapy services. (Participant 17)

(iii) Self development

Most of them acknowledged that the structured courses are worth pursuing. Attending post-graduate courses brought in-depth understanding of an area of specialisation exposure to appraisal of literature review and the critical reasoning process to become reflective practitioners. The co-coordinators of such programmes needed to provide certification or eventually provide credentials for certain skills and performance that would be a boost to the staff involved in the CPD activities.

My participation in post-graduate studies was an eye-opener for me to venture into research. I am able to think critically and provide alternative therapy to the patient's needs. Because of my speciality in manual therapy, I could gain patients' confidence, and they were impressed with my approach of treatment technique…. (Participant 8)

I could reflect when handling patient because I learnt it in my post-graduate study on how to carry out reflection. This has helped me appreciate reflection and indirectly made me think critically. This is definitely useful….I was then able to appreciate problem-based learning and how to translate it into practice and the relevancy of evidence-based practice… (Participant 1)

For me if you undergo certified CPD courses, it gives you more weightage. My organisation provides special allowances and recognition to individuals who have undergone certified specialised courses. (Participant 4)

Theme 3: Barriers undertaking CPD

(i) Financial constraints

Challenges such as financial constraints and high workload demand are limiting factors to CPD participation. Some staff that attended courses were sponsored by their workplace organisation whilst others needed to pay themselves. These courses were generally expensive, especially if it involved foreign guest speakers, with added costs for the fee, transport and lodging.

The fee is expensive and is one of the main reasons why I am not able to attend good courses. This year the allocation of the budget was limited and my manager only allows one sponsored staff to attend the course. Also these courses…were mostly held in Kuala Lumpur, which required me to pay more for lodging and travelling. (Participant 17)

Budget is the number-one factor why I cannot attend good courses and able to attend only certain courses, which are cheaper.(Participant 5)

Most of the courses were held in Kuala Lumpur, which requires me to book a flight to travel besides paying extra costs for the lodging. I have fears travelling in a plane, and the other modes of transport would require me to travel long hours since I am living in Sabah. (Participant 8)

(ii) Demanding workload

Workload demands were indicated as barriers, especially among participants holding managerial positions. The staff shortage in managing patients in the ward setting and the demand of supervisory clinical workload among students were identified as barriers to participation in CPD activities.

From my experience, if you are involved in management, it becomes even more difficult to attend courses, especially if it exceeds more than three days. This is made worse in bigger hospitals where the departments would undergo a series of auditing from certified auditors like SIRIM as well as student's supervisory clinical workload. (Participant 4)

There is not enough staff…. One of the staffs is on emergency leave, one is on maternity leave….. There are also the outpatients who needed to be attended…,so we have to cancel our CPD sessions, as I have to replace some of the staff to go to the wards. In fact, the new knowledge I learnt could not be applied in the clinical setting due to constraint of time. (Participant 5)

(iii) Personal attitude

Attitudinal factors are other contributory factors for poor participation in CPD activities. Some staff was not motivated to improve themselves and are in the "comfort zone." They do not feel the social pressures to develop continuously, even though they are aware that some CPD activities are more rewarding than others. They described the structured courses, for example, a master's programme, as bringing more recognition, a higher salary scheme and promotion, and therefore, worth participation. The senior participants expressed readily that CPD are only for the younger staff, even though they expected to be given equal opportunities like the junior staff for promotions despite their poor enrolment for courses in CPD activities.

> *Some of the senior physiotherapists prefer to let the junior physiotherapists to attend courses due to their family commitments and inability to cope with the changing trend of patient management. However, for some senior physiotherapists who are willing to proceed with CPD, they are encouraged to do so. (Participant 1)*

Theme 4: Strategies to improve participation in CPD

(i) Organisational role

Mandatory participation is encouraged for renewal of the license in ensuring the professionalism of the profession. A mechanism that monitors participation in various CPD activities should be enhanced with incentives and rewards. There were suggestions to professional bodies to play a major role in promoting CPD activities.

> *...I feel remuneration or incentives should be given to those who have undergone further studies, or some kind of specialisation, for example, in Cardiorespiratory, Musculoskeletal or Neurology or value added courses like reflexology or specialised massage technique. They should be given recognition by the professional bodies as well as a mechanism to trace them as experts.... (Participant 1)*

Managers must take the front line in ensuring involvement of CPD among staff. They are responsible for allocating specific time for CPD activities to encourage more participation. In fact, the managers should participate and contribute to CPD activities themselves and set an exemple for other staff.

> *My boss should have strategies, and allocate time frame for CPD activities, perhaps every three months, one physiotherapist in the department should attend CPD courses....(Participant 8)*

> *They should play an important role or else their staff will not take seriously if they themselves did not participate in CPD activities. The leaders need to encourage their staff by taking alternative measures so that CPD programmes are taken seriously among the staff. (Participant17)*

(ii) Relevancy of CPD Activities

The contents of the CPD activities should be relevant for current practices as well as non-clinical activities that are relevant for professional development such as courses related to information technology, management approaches, leadership and communication skills.

> *The CPD activities should also include other non-clinical issues like communication skills, work culture or team work and I'm a bit disappointed, that none of these areas were brought up in the department.(Participant 13)*

A scheduled programme should be identified to ensure continuous flow of events to avoid repetition of the similar topics during CPD activities.

> *Maybe a survey is necessary to ask physiotherapists related to the areas of interests rather than repeating the same topics' several times, for example, lymphedema has been covered on several occasions…. this will bore the participants (Participant 11)*

(iii) Cost-effectiveness

The provision of funding for staff development should be allocated by departmental heads in the planning of the yearly budget. The course organisers should ensure a reasonable fee is charged when organising courses or a mechanism in the provision of subsidies by departments should be considered.

> *Whoever is organising courses should look into the costs so that the participant can afford it. Lately, these courses usually exceed more than RM500 to RM1000. Thus, few would be able to attend, unless it is paid for by the institution. (Participant 3)*

> *…they shouldn't make a profit from CPD courses, imagine if one have to pay RM1500 for a three-day course…. This is too much especially for the younger groups who are only earning between RM1000 to RM2000. Imagine ...if we have to pay RM1500 for a three-day course, this will take away more than half of my pay…because of this. I am not able to attend CPD activities. (Participant 8)*

(iv) Guidelines for CPD activities

A suggestion for the courses offered to demonstrate practical application of theory into practice was made by the participants to ensure benefits for application to practice. Preferably, these courses should be conducted by the best speaker with vast experience to ensure the quality of the CPD contents with distribution of lecture notes during or after registrationfor the courses attended.

> *Sometimes the speakers do not demonstrate their skills but focuses only on the theory... I am not convinced by the speaker that the technique works. They should demonstrate their skills and be confident when answering questions. (Participant 3)*

I think….the slides or notes should be given to the participants to be used as a reference in the future.(Participant 6)

DISCUSSION

It is well documented that continuous professional development (CPD) is important for role expansion of a profession and its integrity (Cooney & Blake, 2000).The physiotherapists agreed that it is through CPD that professionals undergo a process of educational activities to maintain and improve their competency towards a career goal (Pool *et al*., 2012). In fact, it is an integral part of one's working life, where the theories are put into practice (Murphy *et al*., 2006). They demonstrated understanding of the concept of CPD as a process of lifelong learning and a platform for health professionals to gain new knowledge throughout their working life consistent with findings of previous studies (Bolderston, 2007; Gunn & Goding, 2009).

As a consequence, keeping up-to-date with the current evidenced-based practice would lead to quality service in patient care among health professionals (Lee *et al*., 2010). The process of CPD not only involves improving knowledge but specialisation in niche areas of interests, from basic knowledge to advanced knowledge (Bolderston, 2007). Practising new skills through evidence-based practices with new modalities can indirectly provide effective patient care (Bolderston, 2007). Similar to our findings, the physiotherapist perception of CPD was to ensure that they were current in their practices and at par with physiotherapists elsewhere.

There were several advantages in participating in CPD activities identified by the participants that were consistent with previous findings (Blake & Cooney, 2000; Bolton, 2002). This included upgrading of knowledge, sharing of knowledge between colleagues, an opportunity to refresh previous knowledge and acquire the latest information and recognition of practice. As previously acknowledged by Chong *et al*. (2011), knowledge or information that is not updated by learning programmes would result in "deskill" because basic knowledge can last until a half-life of about 2.5 years (Chong *et al*., 2011). The relevancy for CPD participation is also seen in other professions. Similarly, as emphasised by other professionals, most chiropractors agreed that there is a need for participation in CPD activities although it is non-mandatory for them as they discovered that CPD can enhance their professional competencies in providing improved health care services (Bolton, 2002). The nurses improved their competency in practice and developed proper professionalism in their career through CPD activities (Chong *et al*., 2011). This knowledge transfer following participation in CPD activities would increase awareness between the old practices with new practices learnt in a conducive environment (O'Sullivan, 2003;8:107-22).

Our findings revealed that CPD activities have been a pathway among participants to develop critical thinking and become reflective in their practice due to the new knowledge (Cole, 2000) that improved their self-confidence to excel. The enrolment in post-graduate studies provides an avenue for self-development and an opportunity to understand arising problems and create a new interest to develop (Bolton, 2002). The participation in CPD of staff indirectly promotes a working environment that is translated to deliver high-quality health care services (Martin *et al*., 2008). In some organisations, for example, in the Ministry of Health, the staff are awarded credit points to meet the department's key performance indicators (KPI) that can be translated into recognition and salary advancement (Bloom, 2005). The provision

of incentives and remunerations are motivating factors for involvement in CPD activities (Landers *et al*., 2005) among staff.

Likewise, the participation in CPD activities is not without its challenges. There were similar challenges observed in relation to compliance with CPD activities, which includes the demand for extra time as well as the need for considerable effort when undertaking CPD activities (Tennant & Field, 2004). The lack of financial support by a hospital or institutions to provide an opportunity to attend CPD activities were similar findings (Brown *et al*., 2002; Murphy *et al*., 2006). Some physiotherapists had to invest their own money to attend courses for payment of fees, lodging and travelling expenses as reported by Murphy *et al*. (2006), who cited one instance when participants had to allocate 30 % of their income for further education (Murphy *et al*., 2006). Furthermore, the good courses are expensive (Lee *et al*., 2010) especially if external speakers are brought in from overseas. The increased workload at the workplace is another contributory factor that hinders participation in CPD activities, especially that of those with multiple roles, for example, administrative duties, clinical work and student supervision (Wood, 2008). Managers have encountered problems when giving time off to staff for attending CPD activities (Chong *et al*., 2011) as the time taken off could not be replaced by other staff members (Sturrock & Lennie, 2012). The inadequate staff numbers in the workplace can prevent the application of the new knowledge into practice due to time constraint and non-familiarity with the new knowledge (Jull, 2009).

Other barriers to CPD participation were attitudinal factors such as lack of interest, demotivation, comfort zone and family commitments (Hancox, 2002). Personal attitude is crucial as CPD requires the individuals to take personal responsibility for identifying their own learning needs and to evaluate if these needs are met (Donen, 1999). The poor motivation to meet a learning need would prevent them from travelling long distances to attend a workshop (Lee *et al*., 2010). This is similar to the finding of Jukkala *et al*. (2008), who found that 40 % of the subjects in their study agreed that they needed to travel long distances just to gain new knowledge.

Generally, this study showed that the physiotherapists interviewed were motivated to be involved in CPD activities but constrained by a demanding workload, low or no budget and attitudinal factors, poor recognition and acknowledgement. Despite this, they acknowledges that there was a need to create an environment that fosteredCPD through departmental plans that recognise the gaps in knowledge and co-ordinate CPD activities to match clinical needs either through informal or formal activities.

CONCLUSION

Overall, this study managed to identify the physiotherapists' perception of CPD, impact on their practice, the barriers to CPD participation and the strategies to improve CPD participation. Generally, they agreed that CPD was relevant and that every individual needed to update him/herself regularly by attending workshops, seminars or conferences to ensure professional survival and competency. Heads of department or managers should demonstrate flexibility to provide staff with resources and opportunities despite constant budgetary pressures. This has major implications for managers to ensure that an effective mechanism is in place to allow

recognition and rewards for staff who are constantly seeking new knowledge for the growth of their professional development. Such findings can provide suggestions to higher authorities and policy makers to take measures for continuous support of CPD activities in the near future.

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REFERENCES

Adanu, T. S.A. (2007). Continuing professional development (CPD) in state-owned university libraries in Ghana. *Library Management, 28*, 292-305.

Ahuja, D. (2011). Continuing professional development within physiotherapy-a special perspective. *Journal Physical Therapy, 3*, 4-8.

Aris, Y., Ioanna, T., & Eleni, Y. (2010). Nurses' attitudes regarding continuing professional development in a district hospital of Greece. *Health Science Journal, 4*(3), 193-200.

Blake, C., & Cooney, M. (2000). The professional development portfolio—a record of lifelong learning. *Physiother Ireland, 21,* 14–15.

Bloom, B. S. (2005). Effects of continuing medical education on improving physician clinical care and patient health: A review of systematic reviews. *International Journal of Technology Assessment in Health Care, 21*(3), 380–385.

Bolderston, A. (2007). Maintaining competence: A holistic view of continuous professional development. *Journal of Radiotherapy in Practice, 6*, 133-141.

Bolton, J. E. (2002). Chiropractors' attitudes to, and perceptions of, the impact of continuing professional education on clinical practice. *Medical Education, 36*, 317–324.

Bradford, J. C. (2011). Community college presidential transitions: Enhancing the process by understanding stakeholder perceptions.Tesis Ed.D. National-Louis University, United States -- Illinois.

Brown, C. A., Belfield, C. R., & Field, S. J. (2002). Cost effectiveness of continuing professional development in health care: A critical review of the evidence. *BMJ, 324*, 652-655.

Bryman, A. (2008). Social research methods. *Oxford University Press*, Oxford.

Chartered Society of Physiotherapy. (2005). The CPD process—policy and practice in continuing professional development. *Information Paper CPD 30*. London: CSP.

Chioncel, N. E., Van der Veen, R. G. W., Wildemeersch, D., & Jarvis, P. (2003). The validity and reliability of focus groups as a research method in adult education. *International Journal of Lifelong Education, 22*(5), 495–517.

Chong, M. C., Sellick, K., Francis, K., & Abdullah, K. L. (2011). What influences malaysian nurses to participate in continuing professional education activities? *Asian Nursing Research, 5(*1), 38-47.

Cohen, D., & Crabtree, B. (2006). Qualitative research guidelines project. *Robert Wood Jonhson Foundation.*

Cole, M. (2000). Learning through reflective practice: A professional approach to effective continuing professional development among healthcare professionals. *Chartered Society of Physiotherapy, 5*(1), 23-38.

Cooney, M., & Blake, C. (2000). Continuing professional development. *Physiother Ireland, 21*, 9–10.

Donen, N. (1999). Mandatory practice self-appraisal: Moving towards outcomes based continuing education. *J Eval Clin Prac, 5,* 297-303.

French, H. P., & Dowds, J. (2008). An overview of continuing professional development in physiotherapy. *Chartered Society of Physiotherapy,* 190-197.

Gunn, H., & Goding, L. (2009). Continuing professional development of physiotherapists based in community primary care trusts: A qualitative study investigating perceptions, experiences and outcomes. *Chartered Society of Physiotherapy, 95*, 209–214.

Hancock, B. (1998). Trent Focus for research and development in primary health care: An Introduction to qualitative research. *Trent Focus, 27*.

Hancox, D. (2002). Continuing professional development. *Pharma J, 268,* 26-27.

Jukkala, A. M., Henly, S. J., & Lindeke, L. L. (2008). Rural perceptions of continuing professional education. *The Journal of Continuing Education in Nursing, 39*(12), 555-563.

Kurasaki, K. S. (2000). Intercoder reliability for validating conclusions drawn from open-ended interview data. *Field Methods, 12*(3), 79-194.

Landers, M. R., McWhorter, J. W., Krum, L. L., & Glovinsky, D. (2005). Mandatory continuing education in physical therapy: survey of physical therapists in states with and states without a mandate. *Physical therapy, 85*(9), 861-871.

Lawton, S., & Wimpenny, P. (2003). Continuing Professional development: A review. Nursing Standard, 17(24), 41-44.

Lee, S., Reed, W., & Poulos, A. (2010). Continuing professional development : The perceptions of radiographers in New South Wales. *Australian Institute of Radiography, 57(*1), 33-39.

Levy, D. (2006). Qualitative methodology and grounded theory in property research. *Pacific Rim Property Research Journal, 12*(4), 369-387.

Martin, C., Marais, D., & Wentzel-Viljoen, E. (2008). Dietitians' perceptions of the continuing professional development system in South Africa. *South Africa Journal Clinical Nutrition, 21*(2), 27-33.

Miles, M. B., & Huberman, A. M. (1994). Qualitative data analysis. *An Expanded Sourcebook. Sage, Thousand Oaks.*

Murphy, C., Cross, C., & McGuire, D. (2006). The motivation of nurses to participate in continuing professional education in Ireland. *Journal of European Industrial Training, 30(*5), 365-384.

O'Sullivan, J. (2003). Unlocking the workforce potential: Is support for effective continuing professional development the key?. *Res Post-Compuls Educ., 8,* 107–22.

Ping, W. L. (2008). Data analysis in qualitative research: A brief guideto using NVIVO. Malaysian *Family Physician, 3*(1), 14-20.

Pool, I., Poell, R., & Olle Ten, C. (2012). Nurses' and managers' perceptions of continuing professional development for older and younger nurses: A focus group study. *International Journal of Nursing Studies*, 1-10.

Ryan, F., Coughlan, M., & Cronin, P. (2007). Step-by-step guide to critiquing research. Part 2: qualitative research. *British Journal of Nursing, 16*(12), 738-744.

Schreiber J, S. P., Marchetti G., & Provident I. (2009). Strategies to promote Evidence-based practice in pediatric physical therapy: A formative evaluation pilot project. . *Jounal of the American Physical Therapy Association, 89*(9), 918-933.

Sturrock, J. B. E., & Lennie, S. C. (2012). Compulsory continuing professional development: A questionnaire-based survey of the UK dietetic profession. *Journal of Human Nutrition and Dietetics, 22,* 12-20.

Tennant, S., & Field, R. (2004). Continuing professional development: Does it make a difference?. *Nurs Crit Care, 9*, 167–172.

Wood, P. (2008). Continuing professional development in higher education: A qualitative study of engagement in the field of nursing and midwifery. *Journal for the Enhancement of Learning and Teaching, 4*(1), 12-21.

Yeomans, K. (1995). Record your professional experience. *Physiother Frontline, 1*, 11.