Continuing Professional Development: the perceptions of radiographers in New South Wales

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Abstract Purpose: The Australian Institute of Radiography’s (AIR) Continuing Professional Development (CPD) programme provides activities for radiographers, radiation therapists and sonographers. This article aims to investigate the perceptions of radiographers in New South Wales (NSW) of the current AIR CPD programme. Methods: 400 questionnaires were distributed within NSW. The questionnaire was designed to investigate the perceptions of radiographers concerning CPD using five themes: motivation for CPD participation; appropriateness of activities; constraints experienced; effectiveness of programme; and mandatory CPD. Results: One hundred and eight-eight questionnaires (47%) were returned. A total of 68% (n = 127) of the participants were participating in CPD activities. The participants were most motivated by gaining knowledge through CPD. A total of 80% (n = 151) of the participants considered the activities listed in the Credit Recognition Framework to be adequate. The main constraint experienced by the radiographers in the rural setting was the lack of access to CPD activities, while in the metropolitan area, it was lack of time. A total of 59% (n = 111) of the participants commented that the current AIR CPD programme is an effective programme and 66% (n = 125) of the participants stated that CPD should be voluntary for all radiographers. Conclusion: Overall, radiographers identified the strengths and weaknesses of the AIR CPD programme. They were motivated to engage in CPD. This study also highlighted the constraints experienced, which need to be addressed to encourage more participation in the CPD programme.

Keywords: AIR CPD programme, continuing professional development, radiographers.

Introduction

Continuing Professional Development (CPD), used interchangeably in the literature with Continuing Professional Education (CPE), is a concept that has been adopted by many professions, for example engineering, health sciences, teaching and law. A study by Sadler-Smith, Allison and Hayes highlighted three functions of CPD, namely maintenance, survival and mobility. Maintenance encourages the idea of long-term learning, survival requires practitioners to exhibit ongoing competence and mobility serves to increase employability. In another study, Cervero indicated that apart from participating in professional based education, CPD also includes the development of a wide range of skills, such as problem solving, communication and team working, in order for a health practitioner to practise successfully.

In Australia, CPD in radiography is implemented by the Australian Institute of Radiography (AIR). The AIR CPD programme began in 1999 and currently has 5587 active members (L. McLeod, personal communication. Email to S. Lee October 2008). The definition of CPD adopted by the AIR is “Continuing Professional Development is the ongoing maintenance and growth of professional excellence through participation in lifelong learning activities, which are planned and implemented to achieve this for the benefit of participants, patients and the public” (p. 7). Through this programme, the AIR aspires to encourage radiographers and radiation therapists to keep up to date with professional skills and knowledge. The programme requires radiographers, radiation therapists and sonographers to accumulate 36 credits points over a three year cycle by participating in activities from different categories, such as writing, self-directed learning, organised programme and professional services. The credit point allocations for these activities are listed in the Credit Recognition Framework in the Guide to AIR CPD Triennial Program. Compulsory CPD for AIR members began in 2005.

The experiences with CPD of allied health sciences professionals have been identified in the literature and can be categorised into four themes: motivation for participating in CPD, constraints experienced, assessing effectiveness of CPD activities; and the effects of mandatory CPD. The motivational factors quoted by the practitioners are similar, despite the different fields. For example: a study by Gould, Drey and Bertridge found that nurses were motivated to improve patient care and maintain skills. These motivational factors and others, such as the need for updating, better career prospects and compliance with professional body requirements, were identified in the literature from nursing and physiotherapy. Radiographers, nurses and physiotherapists in the United Kingdom (UK) experienced similar constraints. They included lack of staff, access, funding and support from departments. The effectiveness of the CPD activities, including the usefulness of the courses provided, was also investigated. In a physiotherapy study by Gunn and Goding, the benefits of formal and informal CPD activities were highlighted. It was found that formal CPD activities, such as attending courses and seminars, were preferred by most individuals, while the potential benefits of informal CPD activities tended to be underestimated. The effect of mandatory CPD was another popular area of investigation. It was found that mandatory CPD can have two possible influences
on practitioners: their motivation is increased or it is perceived as a burden.\textsuperscript{13,12}

Although there has been extensive research on the CPD experiences of allied health practitioners, in the field of medical radiation sciences in Australia, research is limited. In Australia, since the inception of the AIR CPD programme in 1999, there has only been one publication relating to the evaluation of the CPD programme. In 2000, Brown surveyed radiographers, radiation therapists and sonographers to determine how the CPD programme had been received.\textsuperscript{17} There was a 10% response rate to the survey; however, the number of respondents was unknown and the total number of participants was not specified. Furthermore, it is difficult to generalise the results of a study with a 10% response rate. A questionnaire was used to investigate the experiences of participants in the pilot CPD programme on various aspects of the programme, such as the strength of programme, mandatory CPD for all members and realistic credit allocations. Brown found that the participants felt that the CPD programme provided assistance to them in meeting their professional development. The article indicated that a significant number of remotely located radiographers also participated, hence suggesting that location was not a deterrent. Brown suggested more information regarding CPD could be provided to potential participants and recommended “strive to effect a change in culture to expand the opportunities for self-directed learning, critical reflection and formal education” (p. 164).

In a review, Field highlighted issues regarding mandatory CPD. In the article, the benefits of mandatory CPD included pushing unmotivated practitioners to stay up to date, and ensuring clinical competence, increasing information communication between professionals, and providing equal professional opportunities for all practitioners. Mandatory CPD was also considered to be a substitute for periodic examinations and reviews. In addition, it provided an option for professionals to choose activities which were essential to their needs. The detrimental aspects of mandatory CPD included violation of adult learning principles and the nature of a professional, absence of evidence to demonstrate improvement in practice and maybe a negative impact on learning. The benefits and detrimental aspects of mandatory CPD were compared and Field concluded that the stronger argument was against mandatory CPD.\textsuperscript{14} It was also suggested that an evaluation of the current AIR CPD programme should be carried out to evaluate the effectiveness of the CPD programme and to determine the motivations for the participants and non-participants in this programme. Field also suggested that attention should be directed to other important areas, such as encouraging professionals to be self-motivated and improving the quality of the CPD activities. This could be achieved via an assessment of the needs of the professionals and evaluation of the programme.\textsuperscript{11}

There has been no evaluation of the CPD programme since 2000. Furthermore, there has not been any independent study or evaluation of the CPD programme since the programme was made compulsory for AIR members. Hence, there is a need to investigate the current perceptions of radiographers relating to the CPD programme. This information can be used to improve the current programme. Understanding and alleviating the constraints experienced by the radiographers would encourage more participation in the CPD programme. In order to create a high quality programme, an investigation of the perceptions of the participants is consequently necessary.

The aim of this study is therefore to investigate the perceptions of radiographers relating to CPD in New South Wales. The objectives of the study are: firstly to determine the perceptions of radiographers towards CPD using five themes: motivation for CPD participation; appropriateness of activities; constraints experienced; effectiveness of the programme, and mandatory CPD; and secondly to investigate whether there are any differences in perceptions concerning CPD between radiographers with different years of experience; metropolitan and rural locations; and full-time or part-time employment status.

Methods

A survey was used to gather data for this cross-sectional study. A similar questionnaire was piloted and validated in the final year of the Bachelor of Applied Science (MRS) Diagnostic Radiography, for the 2007 Medical Radiation Project unit of study, from the University of Sydney. This questionnaire was refined and updated to fit the purpose of this study. The questions were modified so as to incorporate the AIR CPD programme and to be directed at radiographers. A total of 21 questions, both quantitative and qualitative, were used in this survey. The questions which investigated the demographics of the participants were formulated using information from two previous studies.\textsuperscript{15} Likert-style scales were used to investigate: (i) the motivational factors for participation in CPD and (ii) perceptions of the appropriateness of the activity provided in the Credit Recognition Framework. The participants were asked to rate the motivational factors for participating in CPD on a scale of 1 to 5, where 1 means very little motivation and 5 means a great deal of motivation, based on how this affects their decision to participate in CPD. The participants also rated selected activities from the AIR CPD Credit Recognition Framework on a scale of 1 to 5, where 1 means very little benefit and 5 means a great deal of benefit, based on how beneficial they feel the activities were to personal development. Due to the extensive list of CPD activities available, not all of the activities could be included in this study. Hence, the activities selected to be used in this study were negotiated with Lori McLeod, Professional Officer Education, Development and Standards AIR (L. McLeod, personal communication. Email to S. Lee November 2007). These selected activities were the commonly logged CPD activities. Open-ended questions were also used to obtain more detailed responses.\textsuperscript{16}

Clinical centres, which were on the University of Sydney’s list of clinical placement centres, were contacted via telephone and the number of radiographers employed in the departments was obtained. Upon their approval, the surveys were distributed in June 2008 after ethical clearance by the University of Sydney Human Research Ethics Committee in May 2008. A total of 400 questionnaires, based on the numbers obtained from the department, were distributed to 36 public hospitals and 39 private practices within New South Wales (NSW). Only radiographers working in NSW were recruited, as the context of CPD varies between states.

A mail survey was chosen as it saved time, preserved anonymity of participants and enabled a greater geographical region to be accessed. In addition, as each participant answered an identical set of questions, this ensured greater standardisation and reliability.\textsuperscript{17} In order to increase the response rate, a courtesy call was also made to the chief radiographer or clinical coordinator in each participating clinical centre one month after the surveys were issued to remind the participants to return the completed surveys. Data collection was completed in July 2008. The data were analysed
using the Statistical Package for the Social Sciences (SPSS)\textsuperscript{17} (SPSS Inc, College Station, Tx, USA) programme.\textsuperscript{17} Descriptive statistics were applied to the data. A reliability analysis was performed on the two Likert scales used in the questionnaire and a Cronbach alpha coefficient obtained for the scales relating to motivational factors and usefulness of activities respectively. If these Cronbach alpha coefficients are above 0.7, this would mean that the scales have good internal consistency.\textsuperscript{18} Chi-square tests were also used to determine if there was any relationship between the variables, such as whether being a member of AIR affected their opinions on mandatory CPD.\textsuperscript{18} Spearman’s Rank Order correlation test was used to test correlation between variables, such as whether the years of experience of the radiographers affected the motivational factors.\textsuperscript{19} Qualitative data obtained from the open-ended questions were analysed using the technique of thematic analysis.\textsuperscript{7} The responses to the open-ended questions were read independently to create an overall impression of the data. The responses were then coded using keywords so as to categorise the data. The main themes that emerged from these data were grouped to demonstrate similarity or diversity of the responses.\textsuperscript{14}

Results

A response rate of 47% (n = 188) was obtained.

Demographics

Table 1 demonstrates the demographic data of the respondents.

<table>
<thead>
<tr>
<th>Demographic data</th>
<th>Responses n (%)</th>
<th>Responses n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member of AIR</td>
<td>Yes 85 (45%)</td>
<td>No 103 (55%)</td>
</tr>
<tr>
<td>Participating in CPD activities</td>
<td>Yes 127 (68%)</td>
<td>No 61 (32%)</td>
</tr>
<tr>
<td>Location of practice</td>
<td>Rural 74 (40%)</td>
<td>Metropolitan 114 (60%)</td>
</tr>
<tr>
<td>Type of employment</td>
<td>Full-time 164 (87%)</td>
<td>Part-time + Others* 24 (13%)</td>
</tr>
<tr>
<td>Number of hours spent on CPD activities per week</td>
<td>None 46 (25%)</td>
<td>More than one hour 142 (75%)</td>
</tr>
</tbody>
</table>

*2 Participants were employed in BreastScreen and were grouped under others.

<table>
<thead>
<tr>
<th>Years of Experience</th>
<th>Gain more Knowledge</th>
<th>Improve job performance</th>
<th>Better job prospect</th>
<th>Increase remuneration</th>
<th>Improve patient care</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-.050</td>
<td>-.065</td>
<td>-.326</td>
<td>-.229</td>
<td>.145</td>
<td>.058</td>
</tr>
</tbody>
</table>

P < 0.01

*Negative values indicate as years of experience increases, the corresponding motivational factors as reasons for participating in CPD decrease.

The employment distribution of all participants between public and private practices is as follows: 64.9% (n = 122) of the participants were employed in a public hospital, 26.1% (n = 49) of the participants were employed in a private clinic and 8% (n = 15) of the participants were employed in private hospitals. Two participants worked for BreastScreen and were categorised under “others”. Figure 1 shows the experience distribution of the participants.

Motivational factors and usefulness of activities

A Cronbach alpha coefficient of 0.722 and 0.801 were obtained for the scales relating to motivational factors and usefulness of activities respectively, hence demonstrating that the scales have good internal consistency.\textsuperscript{18}

Gaining more knowledge, improved performance at work and improved patient care were rated to provide a considerable amount of motivation. This was then followed by better employment prospects, better pay and compliance with professional body requirements. Four participants were not motivated to participate in CPD activities.

The relationship between years of experience and motivational factors to participate in CPD were investigated using the Spearman’s Rank Order correlation. There is a moderately strong relationship between experience and employment prospects [rho = -0.326, n = 184, P < 0.01], with more years of experience associated with lower career prospects as a motivational factor (Table 2).
Table 3 shows the participants’ responses to how beneficial the activities were on the Credit Recognition Framework in the 2007 Guide to the AIR CPD programme. Attending workshops and seminars and participating in discussions with colleagues or experts were seen to have considerable benefit. This was then followed in order by supervision of students, preparing a presentation for staff in-service, workshop or conference, undertaking personal online research, reading journal articles and publishing an article.

**Adequacy of activities**

Approximately 80% \( (n = 151) \) of the participants felt that the activities listed were adequate. A total of 79% \( (n = 148) \) of the participants stated that no additional activities need to be listed. Other participants thought that practical based activities such as tutorials with doctors or team building skills could be included. Approximately 85% \( (n = 159) \) of the participants stated that no activities needed to be excluded. From the remaining 15% \( (n = 29) \) of the participants, some thought that crosswords and word find should be excluded. Also, they thought that the categories were too confusing.

**Constraints experienced**

Lack of time was a common constraint experienced by the participants. This was followed by lack of access to CPD activities, lack of funding, lack of support from department, commitments and other reasons. There were 16% \( (n = 30) \) of participants that did not experience any constraints. The differences in constraints experienced by participants of different employment status were investigated (Figure 2). Lack of time, funding and access were the three most common constraints experienced by participants in full-time employment. In part-time and casual employment, it was lack of time, lack of access to CPD activities, and no constraints experienced.

The differences in constraints experienced by participants in rural and the Greater Sydney metropolitan areas were investigated. It was found that lack of access to CPD activities was a major barrier for participating in CPD for participants in the rural area. For participants in the metropolitan area, lack of time was the major constraint (Figure 3).

**Effectiveness of programme and mandatory CPD**

Approximately 59% \( (n = 111) \) of the participants thought that the current CPD programme is an effective method of keeping track of professional development completed, and that it encourages practitioners to undertake professional development. A total of 66% \( (n = 125) \) of the participants thought that CPD should be voluntary for all radiographers and radiation therapists. Approximately 63% \( (n = 119) \) of the participants also thought that participation in the AIR CPD programme should remain mandatory for members of the AIR. Participants in the study who were members of the AIR were significantly more likely to opt for mandatory CPD for all radiographers and radiation therapists than non-members of AIR \( (x^2 = 19.772, df = 1, P < 0.001) \).

**Additional comments**

Thematic analysis was carried out on the open-ended questions, which asked the participants to provide additional comments. The responses were related to comments on mandatory CPD for AIR members. The themes included: CPD ensured radiographers updated their knowledge; the lack of need for CPD if general
radiography was their main field of practice; the lack of support from the departments acting as a deterrent; and the cost of the CPD programme was too expensive (Figure 4).

Discussion

Response rate
It is accepted that mail surveys generally have a low response rate of approximately 30%. This study obtained a 47% (n = 188) response rate, which is considered an adequate response for a mail survey. The questionnaires in this study were distributed by the appointed personnel in the radiology department and may account for the higher than expected response rate. Also, a courtesy call had been given to the radiology departments one month after receiving the surveys, resulting in the return of a substantial amount of questionnaires.

Motivation for CPD participation
According to a principle of the adult learning theory, internal motivation is more powerful for adults than external assessment. Hence, this suggested that the focus of CPD should be on encouragement of professionals to be motivated seekers of education.

The results of the study demonstrated that radiographers were generally internally motivated to participate in CPD activities. Internally motivating factors such as the desire to gain more knowledge and willingness to spend personal time on CPD activities were demonstrated in this study. Externally motivating factors such as compliance with the professional body were not seen to be highly motivational. Many non-members of the AIR were participating in CPD activities although it was not mandatory for them to do so. A total of 75% (n = 142) of the participants were also willing to spend more than one hour of personal time on CPD per week. This suggested that most radiographers were willing to participate in CPD activities because they could recognise a personal need for it. They did not require external reasons, such as compliance with a professional body or the need to demonstrate professional competency, to take part in CPD activities. It was also found that radiographers with more years of experience viewed better career prospects as a low motivational factor. Some experienced radiographers also commented that they were not interested in career advancement as they were near retirement. Hence, better career prospects were not seen as a motivational factor for them.

Information did not appear in previous research.

Appropriateness of activities
Formal structured activities, such as training programmes, workshops, seminars and conferences, were seen as highly beneficial to the personal and professional development of the radiographers. This finding was supported by several studies, where the radiographers surveyed were more in favour of formal than informal education, such as undertaking online personal study. This finding could be due to the preferred learning style of radiographers. In a study by Fowler in 2002, it was found that radiographers were more prone to a convergers/assimilators style. This meant that they worked better with concepts and abstract ideas than with people. They tended to be more technically orientated and liked to apply their problem-solving skills in a practical way. They also liked to organise information in a concise and logical form. This finding also suggested that radiographers were weaker in reflective study. Reflective study usually required the participants to be risk takers and involve themselves in a new experience. This is an important skill for informal study, which might be a reason why the reflective part of the informal studies was not as popular. Hence, radiographers need to develop reflective skills so that they can draw out the full potential of each learning experience. Activities that could assist them in adopting different learning styles could also be introduced. One example of a reflective activity that can be introduced is workplace journaling, which has been incorporated by the AIR as part of the portfolio programme. Any activities could be included in the process for reflection, such as interaction with patients, attendance at seminars or any events that occurred at work. In the process of reflection, questions could be asked to initiate the reflecting process. The incident to be reflected upon could be described and what the participant felt and learnt from the incident could be recorded. A model used by Chapman, et al. (2009) could be useful for beginners to develop their reflective skills.

Publishing an article was perceived as least beneficial by the radiographers. A study performed by Scutter in 2002 found that while many Australian undergraduate medical radiation scientists were confident in their research abilities, many felt they would not be involved in research after they graduated. The concept of evidence based practice, which is the use of scientific research in providing evidence for better patient care, is becoming better known among Australian healthcare professionals. Hence, research is required to ensure the ongoing best practice within medical imaging departments. In an article by Gambling, Brown and Hogg, it was found that conducting formal research and disseminating the results, was an area which needed development by the radiography profession. They recognised that not all health professionals would be interested in research, but it should be every healthcare professional’s responsibility to keep up to date with new developments. Hence, NSW radiographers should consider the development of research so that evidence-based practice could be implemented by our profession to provide high quality health care services.

Constraints experienced
The constraints experienced by radiographers, such as lack of time, funding and support from departments, were similar to those experienced by other health professionals in other countries. This trend, where radiographers were required to provide their own time and money, supported the idea of a charity paradigm suggested by Munro. The charity paradigm identified benefits and costs to individuals and the organisation. However, it appeared to benefit the employer more than the individual, as the individual contributed personal resources, in the form of time and money, to the organisation. This was expected by the employer because learning and CPD were seen as a fundamental professional responsibilities and duties of the individual. The employer perceived that any benefits would be to the individual only. However, it should be noted that one of the aims of continuing professional development is to contribute to high quality patient care through improved job performance. Hence, the employer would benefit directly through CPD activities which were participated in by the individual.

Radiographers who were employed full time indicated lack of time as their main constraint. This finding was similar to other studies where radiographers did not have sufficient time for CPD due to shift work and lack of staff in the department. Family commitments were usually the chief reason for radiographers to choose part-time employment; hence it was unexpected to discover that family commitments were not chosen as the top constraint by the part-time employed radiographers. Seven out of twenty part-time radiographers felt that they did not experience any con-
straints when completing their CPD activities. This finding suggested that CPD could be manageable if practitioners could have an appropriate allocation of time. However, it should be noted that only a small percentage of part-time practitioners participated in this study. Therefore, the results are not generalisable.

In the metropolitan area, lack of time was a major constraint experienced by the radiographers, while in rural areas, lack of access to CPD activities was the top constraint experienced by radiographers there. Practitioners in rural areas needed to travel some distance to attend CPD courses, which required them to spend more time and money. Furthermore, some rural practices operate with a small number of radiographers, so it would be more difficult for them to take time off to participate in CPD activities. With the constraints experienced by rural and metropolitan radiographers highlighted respectively, open discussion between radiographers and employers would be necessary so that these issues could be resolved and solutions obtained for effective CPD participation. Some possible solutions might be to include more in-house CPD activities or rosters for radiographers to attend seminars. Introduction of distance learning or video conferencing could be a solution for radiographers in remote areas.

**Effectiveness of AIR CPD programme**

The participants identified the strengths and weaknesses in terms of the effectiveness of the AIR CPD programme. Some examples of participants who experienced the strength of the programme included:

- **Participant 16** (over 16 years of experience, employed full-time in a public hospital) stated that “I think the AIR has done very well in setting up and maintaining the CPD programme”.
- **Participant 176** (over 16 years of experience, employed full-time in a public hospital) stated that “The current format seems to be fair and not too difficult to achieve”.

The difficulties experienced when partaking in CPD activities were a cause for some participants to think that the AIR CPD programme was ineffective.

- **Participant 48** (0 to 5 years of experience, employed full-time in a private hospital) stated that “…time consuming, too expensive, when part of AIR and Australasia Sonographer Accreditation Registry (ASAR) separate points need to be acquired for both…”
- **Participant 30** (0 to 5 years of experience, employed full-time in a public hospital) stated that “...In the current framework the AIR does not adequately appreciate the effort/workload that post grads undertake in regard to CPD ...The AIR needs to encourage and facilitate more radiographer research... We don’t have time during work, and are too wrecked after work to do this...”

This may suggest that more improvements could be made to the programme. The constraints experienced by the radiographers also need to be addressed to increase participation and make the programme successful.

**Perceptions towards mandatory CPD**

The importance of maintaining skills and remaining professionally updated through mandatory CPD was expressed explicitly by some participants, and was implicit in the comments offered by others.

- **Participant 163** (over 16 years of experience, employed full-time in a metropolitan private clinic) stated that “I believe that everyone involved in the provision of healthcare has a responsibility to their patients by providing the best possible care, and they can only do this, armed with current knowledge”.

However, some of these participants also voiced the difficulties associated with mandatory CPD.

- **Participant 172** (0 to 5 years of experience, employed full-time in a metropolitan public hospital) stated that “I believe that CPD is important for us as a profession and does encourage up-skilling and continuing development, particularly of new technology and techniques. However, there is a lack of opportunities and support”.

Other participants also raised financial and time constraints as reasons for supporting voluntary CPD. This agrees with the findings from previous studies where similar constraints were experienced by other health care professionals. Several participants expressed that the cost for participating in CPD activities, appellation of activities and AIR membership were too expensive.

- **Participant 90** (0 to 5 years of experience, employed full-time in a metropolitan private clinic) stated that “...too expensive to study CPD and attend seminar and conference which the work place does not support…”

These difficulties experienced during CPD participation were reasons for some participants to believe that the current AIR CPD programme should not be made mandatory. Therefore, in order to increase participation in the CPD programme, some form of support could be given from the employer and AIR. Consideration, such as lowering the credit points needed, could be given to part-time and experienced practitioners. Funding by the department or decrease in cost of participation might be an incentive.

**Study limitations**

While this study has provided an overview of the perceptions of radiographers on CPD in the NSW, there are limitations to the methodology. First, there was an unequal amount of full-time employed and part-time employed participants. This was due to the method of distribution used since the researcher was not present to ensure that an equal number of full-time and part-time radiographers received the surveys. There should ideally be an equal number of respondents from both areas to provide a significant and fair representation of each group so as to investigate whether there were any differences in experience between these two groups of radiographers.

Second, the phrasing and selection methods could be improved to provide a better understanding of the questions. For example, instead of allowing the participants to select all the constraints they experienced when trying to complete the CPD activities, the participants could have been told to rank the constraints. This would enable statistical analysis to be carried out more easily (Personal communication. K.Pepper, Lecturer, University of Sydney, August 2008).

**Conclusion**

This study has provided new knowledge for radiography and other allied health professions. The majority of radiographers were motivated to engage in CPD activities. Formal and structured CPD activities were preferred to informal CPD activities. The list of activities in the Credit Recognition Framework and the credit point allocated to each activity were perceived to be adequate.

The main constraints experienced by the radiographers were lack of time, access and funding. The majority of the participants agreed that the current AIR CPD programme is an effective programme since it provides a method for keeping track of professional development completed and also for encouraging practitioners to undertake professional development. The majority
of the participants also stated that CPD should be voluntary for all radiographers.

It is the opinion of the researchers that practitioners, employers and the AIR need to work together to increase opportunities for CPD as no one stakeholder can take sole responsibility for the delivery of a successful CPD programme. Encouragement from the workplace with incentives, such as funding and study leave, may increase participation in the CPD programme organised and monitored by the AIR. This would in turn provide confidence to all stakeholders that radiographers are able to deliver high standards of health care services that meet the needs of the patients in their care.

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