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Will the patient benefit from the radiographers' attendance of ethics presentations at continuous professional development (CPD) events? Results of an online survey

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Abstract

The continuing professional development (CPD) guidelines of the Health Professions Council of South Africa (HPCSA) include ethics, human rights and medical law. Practitioners must obtain a specified number of ethics continuing education units (CEUs). Over the decades the Society of Radiographers of South Africa (SORSA) has offered on-going CPD activities for radiographers to obtain their mandatory ethics CEUs which include human rights and medical law. To date no studies have been undertaken in South Africa to determine whether the content of CPD activities meets the HPCSA ethics guidelines in terms of whether radiographers do apply knowledge gained in their interactions with patients and other practitioners. In view of this gap in the literature this study had two broad aims. The first was to determine whether South African radiographers are of the opinion that the content of ethics CPD activities over the past 10 years enabled them to apply the information to benefit patients. The second was that findings would highlight topics for future CPD ethics activities to address the HPCSA CPD guidelines in terms of focusing on patient care. There were eight broad objectives that related to the two aims of the study.

Methodology: A questionnaire was used to conduct a quantitative, descriptive, and exploratory survey. Invitations to participate in the online survey were placed on regional branches' SORSA Facebook pages, and the SORSA website. Members also received an automated text message (sms) to their cellphone (mobile) numbers on the current database. There were 292 respondents. There were three sections in the questionnaire: demographic information, ethics as offered at CPD activities to meet the HPCSA guidelines, and the definition of ethics. Respondents were asked to list topics for future CPD events in two open-ended questions.

Results: There was a 41% response rate. The majority (86%) of respondents stated they were familiar with the HPCSA CPD guidelines. Forty-six percent (46%) stated they were familiar with the topic of ethics (moral philosophy) being concerned with human character and conduct; 46% stated they could apply the principles in their work place; and 27% were of the opinion they needed to learn more about the topic. Less than half of respondents agreed that CPD activities influence their daily practice in terms of patient care and rights, and medical law. In terms of the content of ethics presentations focussing on patient care the majority (64%) were of the opinion they did; while 22% were not sure; and 14% disagreed. Twenty-nine percent (29%) mostly agreed that the CPD events they had attended did address the principles of autonomy, beneficence, non-maleficence, justice and human dignity, and as such did focus on the responsibilities of professionals and the rights of patients. The majority (82%) agreed that more focus should be on ethics at CPD events in order to improve patient care. Topics to address this gap include informed consent, protection of patient records, and ethical dilemmas in the workplace.

Conclusion: Most respondents were familiar with the ethics requirements of the HPCSA and agreed that CPD activities influenced their daily practice. However, there are gaps that should be addressed in future CPD events as evident in the proposed ethics topics. Hopefully SORSA will design CPD activities based on these topics.

Keywords patient rights, informed consent, confidentiality, medical law, patient records

Introduction

In 1991 Caruth and Caruth^[1] stated: "Health care supervisors have an obligation to provide the educational opportunity that will enable professionals to emerge with a perspective that allows them to take an ethical stand and to support that position with sound, rational thinking. In fulfilling this obligation, individuals working within health care facilities can significantly contribute to their profession and to society." Their opinion underscores the importance of ethics in education in

health services. It emphasises the obligation of health care professionals (HCPs), to maintain and acquire new knowledge, skills and ethical attitudes on a continuous basis. This obligation is also aligned with the registration requirements of the Health Professions Council of South Africa (HPCSA).^[2]

Although radiographers may question their specific role in the ethical decision-making process and involvement of patients, their knowledge of ethical, legal and patient rights matters as they are vital

members of the HCP team. Thus each radiographer has a duty to be well versed in these topics. A study by Breslin and co-workers^[3] showed that the top three ethical dilemmas that Canadian HCPs need to deal with are: decision-making about patient treatment and conflicts between the patient and family members; matters about patients' waiting lists; and resource allocation to the aged.

Ethics is derived from the Greek words *ethos* (custom) and *ethikos* (to do with conduct).^[4] Ethics (or moral philosophy)

is concerned with human character and conduct. It deals with questions of right and wrong, good and evil. It uses a systematic, rational approach based on a set of principles, to determine what is good or ethical, and what is bad or unethical, human conduct. These principles are sometimes called values or norms.^[4] Ethics refers to the general body of rules, written or unwritten, relative to the conduct of members of the profession. It is intended to guide them in maintaining certain basic standards of behaviour. It is an obligation to do or refrain from doing something to protect the public and to guide the professions in terms of the law of South Africa. Bioethical principles determine how radiographers interact with patients and their family, as well as with other health professionals. The overarching ethical principles in health care are autonomy, non-maleficence, beneficence, and justice.^[5]

The HPCSA mandated continuing professional development (CPD) through the Health Professions Act of 1974.^[6] CPD empowers HCPs to address their professional 'knowledge, skills and attitudes that underpin competent practice'.^[2] To comply with the HPCSA regulations, and keep yearly registration active, a radiography practitioner has to accumulate 30 continuing education units (CEUs) in a 12 month period. Five of the CEUs need to be earned in the category ethics, human rights and medical law. These CEUs, according to the HPCSA^[2] are necessary as advances in health care are often in conflict with politics, religion and economics, for example.

Evans^[7] emphasises that the changing healthcare environment leaves HCPs no choice to update their knowledge in this area. Specific changes, such as different distribution of tasks and the influence of information technology, are mentioned. The HPCSA emphasises the relevance of research ethics, patient-centered care and the importance of patient safety as prescribed in the Constitution of South Africa.^[8] In addition, radiographers also need to take note that the revised scope of practice (currently under review) will add to their responsibilities and will require specific focus on ethical matters, patients' rights and medical law. Important to note is that service delivery to patients should always be underpinned by professional ethics as covered in South African legislation.^[8-11] CPD aims to promote and enhance HCPs' professional integrity.^[2]

The Society of Radiographers of South Africa (SORSA) is an accredited service provider and offers on-going CPD activities. The relevance of activities, to be offered at CPD events, are evaluated by a standing CPD committee. Activities in this paper, refer to presentations, interactive workshops, etc. Events in this paper refer to, for example, seminars, symposia, and congresses offered by SORSA. This committee is mandated to approve national and branch CPD activities. The committee members have to verify that CEUs are allocated according to the HPCSA CPD guidelines.^[12] This verification includes approval of programmes, topics, and the expertise of presenters. For this reason the latter are required to submit a brief curriculum vitae, abstract and objectives of their respective papers. This seems a straight forward process, but most applications have to be returned to the organisers to verify topics on ethics. Committee members, from time to time, do not always agree on whether an ethics abstract meets the HPCSA guidelines. We noted during committee discussions that there was often vastly different understandings of ethics as a concept, mainly because of an absence of guiding principles for the allocations of ethics CEUs. The aforementioned, as well as the fact that no evidence of recent studies on this topic in South Africa could be located, led the researchers to question whether previous ethics CPD activities did enable radiographers to focus on patient care practices in terms of their understanding of ethics. A search for relevant literature using the keywords 'continuing professional development for radiographers' yielded evidence of recent and similar studies conducted by Uarije and co-workers in Windhoek,^[13] Stevens, and Stevens and Wade in the United Kingdom^[14,15] and Elshami and co-workers in Sudan.^[16] However it should be noted that these studies did not focus on ethics.

There were two broad overarching aims in the study: to determine whether South African radiographers are of the opinion that the content of ethics CPD activities over the past 10 years enabled them to apply the information to benefit patients; and to obtain suggestions of topics for future CPD ethics activities to address the HPCSA CPD guidelines in terms of focusing on patient care.

Eight broad objectives underpinned these overarching aims of the survey, namely:

1. To establish how many radiographers

know what is included in the HPCSA CPD guidelines in terms of ethics.

2. To establish how many radiographers obtained ethics CEUs by attending SORSA congress and or CPD events hosted by other organisations.
3. To establish whether the radiographers were of the opinion that the content of ethics presentations at any CPD event that they attended primarily focussed on patient care.
4. To establish to what extent the ethics CPD events covered the principles of autonomy, beneficence, non-maleficence, justice, human dignity, the responsibilities of professionals and the rights of patients.
5. To establish which ethics CPD activities are accessed by radiographers to obtain their mandatory CEUs.
6. To establish whether radiographers understand the HPCSA's definition of ethics
7. To establish whether attendance of ethics CPD events influences the clinical practice of radiographers .
8. To explore and describe radiographers' recommendations for ethics topics at future SORSA CPD events

Methods and materials

This was a mainly quantitative descriptive study that used a questionnaire for the survey. A descriptive study typically describes current perceptions and quantifies a phenomenon, such as ethics in this study.^[17]

To address the objectives a questionnaire, comprising 27 questions, was compiled as a research tool for the survey. There were three sections in the questionnaire: demographics; ethics; and definition of ethics and suggested topics. These sections broadly linked to the objectives. The tool was loosely based on one that was used in a South African study on informed consent.^[18]

Predominantly closed-questions were used in this current survey to obtain quantitative data on aspects such as: the demographics of respondents; whether the content of ethics CPD activities were germane to patient care; and whether future CPD activities should focus on ethics to improve patient care. Since the survey aimed to obtain opinions of radiographers open-ended questions were also included in the research tool to collect qualitative data. The respondents were requested to

provide topics on ethics issues for future CPD activities and events.

Upon SORSA approval of the study a pilot study was undertaken to evaluate the competency of the questionnaire resulting in minor changes to the tool as well as to address its validity and reliability. Due to time and costs restraints an online software programme (SurveyMonkey)⁽¹⁹⁾ was used to capture and calculate the responses. Purposive, non-probability sampling was used^(20,21) since the survey focussed on radiographers' opinions and knowledge of ethics. The inclusion criteria were:

- radiographers in any category, namely diagnostic (D), nuclear medicine (NM), radiotherapy (RT) and ultrasound(US), registered with the HPCSA,
- respondents had to have access to email and internet facilities to be able to access a hyperlink to the online questionnaire,
- SORSA members,
- non-members who consented to use of their respective email addresses in the online survey.

Email addresses were sourced from the SORSA membership database. To include radiographers, who were not members of SORSA, an invitation to participate in the online survey was posted on SORSA's website, advertised at SORSA CPD activities at branch level, and on SORSA's social media platforms. Email addresses of non-members who responded to the invitation to participate in the survey were included. The email addresses of potential participants were uploaded and e-invitations were sent to all the uploaded email addresses (n=730). Twenty-two emails bounced, three invitees opted out, and 309 did not open the email invite. In view of the bounced emails, 730 was adjusted to n=708. The authors adhered to research ethics thus respondents were informed that the information they provided would not be divulged to other persons. Furthermore, the privacy and anti-spam policies of SurveyMonkey⁽²²⁾ were strictly adhered to. The email invitation message included an 'opt out' option (remove link field). Completion of the questionnaire was assumed to be confirmation of consent. Respondents were informed that the outcome of the survey would be published, and that their identities would

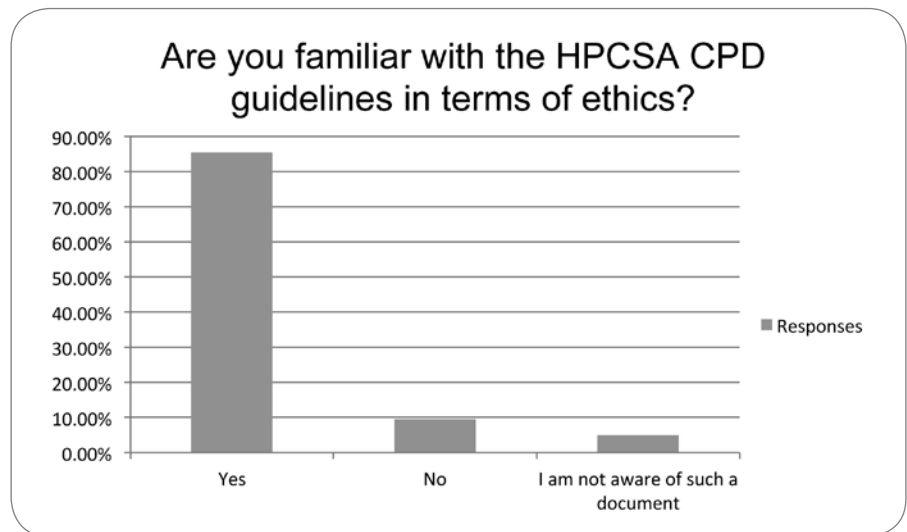


Figure 1. Respondents' responses with respect to being familiar with the ethics guidelines of the HPCSA.

be kept confidential and not shared with third parties.

Results

Two hundred and ninety-two (n=292) respondents completed the survey. The response rate was 41% (292/708). The majority (96%) of respondents are SORSA members. The results of the closed questions were as follows. The majority (65%) were employed as diagnostic radiographers; 15% as radiotherapy radiographers; 7% as sonographers; 6% in education; 2% as nuclear medicine radiographers; 5% were not practicing radiography. The breakdown of place of employment was: private sector (40%); public sector (36%); independent private practice (8%); higher education (7%); not employed (6%); other (3%). There are nine provinces in South Africa, and in this survey 27% of the respondents resided in Gauteng, 24% in KwaZulu-Natal, and 22% in the Western Cape, the remainder were from the other six provinces. The majority of the respondents (69%) practice radiography in a major South African city. Sixteen percent (16%) practice radiography >100 km from a major city.

The majority (73%) stated they had attended SORSA-hosted seminars (symposia) to obtain ethics CEUs. Fifty-nine percent (59%) who had not attended such CPD events stated their schedule did not allow them to do so; twenty-one percent (21%) stated SORSA CPD events are expensive to attend; six percent (6%) stated the SORSA branch in his/her region does not offer CPD activities; the balance

stated other reasons. Fifty-three percent (53%) obtained ethics CEUs at SORSA congresses. Eighty-one percent (81%) stated they had obtained ethics CEUs by attending/participating in CPD activities offered by other organisations. Nineteen percent (19%) stated they never attend SORSA CPD events; forty-eight percent (48%) stated they attend one CPD event each year; thirty-three percent (33%) attend more than two SORSA CPD events each year. Eighteen percent (18%) stated they never attend CPD events hosted by other organisations; 46% stated they do attend such events once a year; and 37% do so more than twice a year; thirty-six (36%) stated they did so because the topics of the other organisation were in line with their developmental needs, and 11% stated they did so because of costly SORSA events.

Figure 1 shows the results of question 14 which covered the HPCSA CPD ethics guidelines. The majority (86%) stated they are familiar with the guidelines. Forty-six percent (46%) stated they were familiar with ethics (moral philosophy) being concerned with human character and conduct as it

- deals with questions of right and wrong, good and evil
- refers to the general body of rules, written or unwritten, relative to the conduct of the members of the profession
- is intended to guide them in maintaining certain basic standards of behaviour
- is an obligation to do or refrain from

doing something to protect the public and to guide the professions in terms of the law of South Africa.

Forty-six percent (46%) stated they could apply the principles in their work place; and 27% were of the opinion they need to learn more about the topic. Fifty-nine percent (59%) agreed that they do apply the principles in clinical practice, and 32% mostly agreed that they do so. Forty-nine percent (49%) agreed that CPD activities influence their daily practice in terms of patient care, and 28% mostly agreed they do. The responses to the questions whether CPD activities influence daily practice in terms of patient rights were: 49% agreed, 27% mainly agreed, and 18% neither agreed nor disagreed. The responses to the question whether CPD activities influence daily practice in terms of medical law were: 48% agreed, 26% mostly agreed, and 20% neither agreed nor disagreed.

In terms of the content of ethics presentations focussing on patient care the majority (64%) were of the opinion they did; 22% were not sure; and 14% disagreed. Twenty-nine percent (29%) mostly agreed that the CPD events they had attended addressed the principles of autonomy, beneficence, non-maleficence, justice and human dignity, and as such focussed on the responsibilities of professionals and the rights of patients; 45% agreed and 20% were neutral. The majority (82%) agreed that more focus should be on ethics at CPD events in order to improve patient care.

The respondents were asked whether CPD activities pertaining to ethics influenced their daily practice in terms of patient rights: 27% mostly agreed they did; 49% agreed; 3% disagreed; and 18% neither agreed nor disagreed.

Seventy percent (70%) obtained their ethics CEUs from more than one provider. Sixty-four percent (64%) of all the respondents had not used SORSA's directed reading programmes (DRPs) over the past five years to obtain their ethics CEUs. Thirty percent (30%) did not know of such DRPs, and 43% stated they earn adequate CEUs.

The two open-ended questions covered topics for future CPD activities including DRPs. Respondents were requested to provide five topics. Most recommended similar topics for both. The five proposed

topics for both activities included informed consent, confidentiality matters (e.g. students accessing patient records for assignments without consent), protection of patient records in terms of legislation, inter-professional relationships, ethical dilemmas in clinical practice, ethics of infection control in a department, public sector ethics, and medical ethics in the workplace (see Table 1). It should however be noted that 120 respondents did not respond to these questions.

Discussion

Literature highlights challenges and benefits of CPD.^[13-16,23-26] This study broadly covered these in the closed and open-ended questions pertaining to ethics for radiographers in South Africa. CPD that includes ethics is an HPCSA requirement for annual registration purposes.^[2,12] Patient rights, including informed consent, privacy, and confidentiality, are covered in relevant legislation.^[8,9] There were two aims in this study: to determine whether South African radiographers are of the opinion that the content of ethics CPD activities that they attended enabled them to apply the information to benefit patients; and to obtain suggestions of topics for future CPD ethics activities to address the HPCSA CPD guidelines in terms of focussing on patient care.

These aims were underpinned by eight objectives. Invitations to participate in the survey were sent to 708 radiographers; 292 completed the online survey. The response rate was 41%. Although the response rate was low, it was in line with the findings of other similar studies.^[13-16] The majority of respondents are SORSA members. A discussion of the results, guided by the objectives, is presented below. It should be noted that although most of the responses in the survey were positive, the responses to specific questions in the survey helped to identify specific and important matters that need to be addressed. The majority of the respondents are diagnostic radiographers (65%) from the public (36%) and private sector (40%). The respondents are mostly from Gauteng (27%), Western Cape (23%), and KZN (24%). The respondents mostly practice in major cities (70%) and are SORSA members (95%). Thus there are many voices of radiographers in South Africa who are working in the government hospitals, or who are registered in the therapy, nuclear medicine, and ultrasound categories, and

Table 1. CPD and DRP topics

CPD AND DRP TOPICS
Radiation protection / awareness /ALARA
Imaging practices
Informed consent
Ethical decision making (with case studies)
Professional conduct and communication
Radiographers reporting
Patient care in all categories of radiography
Medico-legal matters
Confidentiality
POPI Act
Medical law
Patients' rights
Infection control

non-SORSA members that are thus not reflected in the survey responses. In addition, the voices of the radiographers from the rural areas are also silent.

The respondents (73%) indicated that they usually attend one or more SORSA seminars, and 53% attend one or more SORSA congresses, to earn their ethics CEUs. The respondents (81%) indicated that these events are supplemented by events organised by other organisations, mostly because of the topics offered by the latter. The two main reasons why the respondents do not attend the SORSA seminars are: they find the events expensive, and their schedules do not allow participation. In similar studies^[15,16,26] the radiographers indicated barriers to attend CPD activities factors as being time constraints, cost, staff shortages, and also lack of activities presented, for example. This being said, it should also be noted that 19% of the respondents indicated that they never attend a SORSA CPD activity; while a small number (3%) indicated that their SORSA branch does not offer CPD events. To earn CEUs, 45% attend events presented by other organisations more than once per year, and 37% more than twice per year. SORSA CPD providers thus need to take note and act on the above information. Some of the matters that need to be addressed are: add flexibility to the schedules of the events; make sure that the topics covered are relevant to the needs of the radiographers from all categories and demographics: constantly make efforts to offer value for money; and keep

the cost of the CPD events reasonable. In terms of barriers, Stevens^[14] offered, as a solution, to present CPD activities during work hours.

It is a positive confirmation that 85% of the respondents indicated that they are familiar with the HPCSA ethics guidelines.^[2] It may be possible that this response is related to the fact that respondents were mostly SORSA members who confirmed that they attend SORSA CPD events. The respondents also confirmed that SORSA events over the past 10 years had focussed on topics such as patient care matters (61%). Almost 74% agreed, or mostly agreed, that past CPD events had focussed on principles of autonomy, beneficence, non-maleficence, justice, human dignity and medical law. However 82% agreed that the content of CPD activities should include ethics to improve patient care. Also CPD organisers need to consider the application of patient care and ethics principles in their CPD activities.

In an effort to assist radiographers to earn CEUs, SORSA compiles direct reading programmes (DRPs). They cover specific topics and are purchased from the SORSA administration office. Their advantage is that radiographers can complete the multiple choice questions in their own time to earn their CEUs. The DRPs are advertised on the SORSA website (www.sorsa.org.za) and in the journal, the *South African Radiographer*, available to all SORSA members. Thirty-six percent (36%) of the respondents indicated that they used DRPs. The 64% who did not use the DRPs indicated that they earn adequate CEUs (43%), or that they are not aware of this service (30%). Despite such advertising it seems that more efforts are needed to create awareness about the DRPs.

The respondents confirmed that CPD activities should focus on ethics to improve patient care. They furthermore indicated that they are familiar with the definitions of ethics and, can apply knowledge gained at CPD events in the work place. It should be noted that this response came from less than 50% of the respondents. The majority (77%) agreed and mostly agreed that CPD activities influence their daily practice of patient care. The respondents (76% and 74% respectively) confirmed that ethics presentations at CPD events can influence daily practice on patients' rights and medical law aspects. Almost all (91%) agreed

and mostly agreed, that they apply the principles of ethics in their daily practices.

The majority of the radiographers who participated in the survey indicated they are familiar with the HPCSA ethics guidelines (80%). They indicated past CPD events' topics had included the ethics guidelines such as autonomy, beneficence, maleficence and justice. However, they also confirmed that including these topics in future CPD events will be an advantage. The topics that the respondents selected for future CPD events and DRPs are also interesting. Although some of the respondents did not understand the question, the topics will help SORSA to present events that are of interest to members. The topics listed in Table 1 indicate that radiographers agree that their learning about ethical matters needs improvement. SORSA thus should use the identified topics as a guideline to address the needs of the radiographers and take note of the request that some ethics presentations need to be in a case study format. Respondents are of the opinion that this format will help them grasp and internalise the important aspects about informed consent, confidentiality, and ethics in general.

The respondents indicated that there is no need to use SORSA's DRP service because they earn adequate CEUs, although 30% were not aware that SORSA offers this service. Considering the population who responded to the survey (see above comment), as indicated above there should be ongoing efforts to educate radiographers and familiarise them with the HPCSA ethics guidelines. SORSA, as a CPD provider, should be encouraged to present these activities based on case studies, and in an interactive style, so as to involve participants. As such the important focus on patient care will also receive ongoing attention. SORSA also needs to actively market the services that they render for members and non-members to earn CEUs.

Limitations

There were three limitations in this survey.

- This was a sample of mainly SORSA members who had access to the internet to complete the online survey. SORSA members and non-members who did not have internet access were thus excluded from participating in this opinion survey.
- The limitations of the study include a low (less than 50%) response rate.

A bigger response rate may have provided increased validity to generalise the results to the bigger national radiographer corpus. Additionally a number of the radiographers reported that they were unable to submit the completed questionnaire online, even though provision was made to complete the survey from a mobile apparatus.

- Some respondents did not complete all the questions in some sections; this could have had an influence on the results.

Recommendations

- SORSA needs to design CPD activities as well as add flexibility to CPD event schedules, based on the needs of the radiographers in the respective regions.
- Based on the definitions of ethics SORSA needs to develop guidelines by means of a Delphi survey to assist branches with the identification of activities/papers at CPD events that will qualify for ethics CEUs.
- Radiographers should have the option to participate in an online module on ethics, patient rights, patient care, and medical (health) law.
- A comparative survey should be undertaken in a few years' time to determine whether there has been an increase in ethics content in CPD events as recommended by the respondents.
- To reduce the risk of survey fatigue and, to obtain a sample that is representative of total membership of SORSA, sample power calculations should be used to obtain an ideal sample size.
- A survey should be done to determine whether the proposed guidelines assist organisers of CPD events with the identification papers/presentations that will qualify for ethics CEUs.

Conclusion

Radiographers in South Africa have an obligation to maintain and acquire new knowledge, skills and ethical attitudes on a continuous basis. This obligation is aligned with the registration requirements of HPCSA in South Africa.^[2] This research was guided by three questions: whether previous ethics CPD activities did enable radiographers to focus on patient care

practices in terms of their understanding of ethics; whether radiographers do apply knowledge gained in their interactions with patients and other practitioners; and whether radiographers are familiar with the ethics guidelines and requirements of the HPCSA. Although the results of this study enabled the researchers to confirm the answers to the questions, they also showed that there are gaps that should be addressed at future CPD events. The range of proposed ethics topics for future CPD events are a gauge of the needs of radiographers. It is hoped that SORSA will design CPD activities based on the proposed topics as well as take note of the needs of radiographers working in rural

areas, in the government sector as well as in the other categories of radiography. The CPD committee should actively motivate all branches to provide more ethics presentations at CPD events to address the specific needs of radiographers as highlighted by the respondents. SORSA should offer online ethics modules as part of its service to members.

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Competing interests

The authors have no financial or personal relationships which may have inappropriately influenced them in writing this article. They place on record that they are SORSA members.

Contributions of authors

HF-N (CUT), and LM developed the questionnaire. They analysed the results and wrote the manuscript.

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