

South African health practitioners' patterns of CPD practices – implications for maintenance of licensure

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Background. The statutory requirement for continuing professional development (CPD) for all health professionals registered with the Health Professions Council of South Africa (HPCSA) has been in place since 2007. The HPCSA intends to implement maintenance of licensure (MoL).

Objectives. To determine practitioners' perceptions and experiences of engaging with CPD to inform the development of the MoL system.

Methods. A cross-sectional survey of practitioners registered with the HPCSA was conducted. The self-administered 30-item electronic questionnaire covered practitioner demographics and patterns of CPD practice and was completed by 11 307 respondents.

Results. Methods used to determine learning needs included self-assessment (56.8%) and audit of own practice (53.2%). Selection of CPD activities was based on interest (80.2%) and expertise (72.8%) and less so on gaps in knowledge (66.1%) and skills (61.8%). The most frequent learning activities were primarily didactic (workshops (58%), lectures (53%) and conferences (51%)). Barriers included cost and location of CPD activities, especially for women and rural practitioners ($p < 0.001$). Employer support for CPD was associated with adherence ($p < 0.001$). There was strong support (88.7%) for continuing education as a component of MoL, but less support (<50%) for other elements, even though practitioners voluntarily engaged with these practices.

Conclusion. Respondents engage in a range of activities that could be incorporated into a MoL system. The transition to MoL requires development of tools, including objective assessments, guidelines for individualised learning programmes and expanding the range of learning activities. Strategies to address barriers to CPD need to be considered.

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South Africa (SA) was one of the first countries to integrate 12 statutory health professional boards: Dental Therapy and Oral Hygiene (DOH); Dietetics and Nutrition (DTB); Emergency Care (EMB); Environmental Health (EHO); Medical and Dental (MDB); Medical Technology (MTB); Occupational Therapy, Medical Orthotics Prosthetics and Arts Therapy (OCT); Optometry and Dispensing Opticians (ODO); Physiotherapy, Podiatry and Biokinetics (PPB); Psychology (PSB); Radiography and Clinical Technology (RCT); Speech, Language and Hearing (SLH). These boards represent 83 professional categories under one umbrella body, the Health Professions Council of South Africa (HPCSA). In 2007, the HPCSA changed the statutory requirement to include continuing professional development (CPD) compliance to remain registered as a health practitioner.^[1,2] The intention was to promote ethical and competent practice, which requires continually updating knowledge and skills with an end benefit to the patient/client.^[3]

The CPD system is one of self-selected continuing education activities to update knowledge and skills. Practitioners are required to engage with CPD for at least 30 hours per year (15 hours for certain categories), of which 5 hours must be in the area of ethics, human rights and health law. One hour is equivalent to one continuing education unit (CEU). The range of accredited learning activities includes those at level 1, i.e. once-off activities (e.g. workshops, lectures, seminars, conferences); and level 2, i.e. formal courses/programmes of study with measurable outcomes, and other activities (e.g. learning portfolios and practice audits).^[3] Practitioners are free to select learning activities and are expected to maintain their records. Random audits of practitioners, which require submission of CPD records, are conducted to determine adherence with the requirements.

A challenge for the HPCSA is its ability to assess the impact of CPD on practitioners' competence and performance^[4] to assure the public that practitioners are up to date with new knowledge, skills and current trends. Internationally, efforts to assess competence and performance, improve quality of care, detect early performance that does not meet the standard and promote professional accountability have seen the introduction of recertification,^[5] revalidation^[6] and maintenance of licensure (MoL).^[7] These processes require practitioners to improve practice by implementing an individualised CPD programme that meets the individual's learning needs, with assessment of performance and/or competence.^[6,8]

In 2013, the HPCSA initiated the process for MoL. The rationale was to move beyond the acquisition of knowledge to include the development of skills and improvement of performance. Development of the MoL strategy is underway. This study set out to determine practitioners' perceptions and experiences relating to their engagement with CPD to inform the development of the MoL system.

Methods

A cross-sectional prospective survey design was used. Participants were required to be health practitioners registered with the HPCSA, and to have email access. Practitioners for whom CPD is not a requirement were excluded, i.e.: (i) those in non-clinical practice; (ii) those doing community service; and (iii) undergraduate students. At the time of the survey, there were 182 152 practitioners who were eligible for participation.

An electronic questionnaire designed for self-administration and based on a survey of dentists^[9] was modified to reflect SA requirements and

the range of health professionals registered with the HCPSA. Content and face validity were addressed through an iterative process of consulting with selected healthcare practitioners on the registers of different professional boards, members of the HPCSA's CPD committee, and by pilot testing. The 30-item questionnaire covered practitioner demographics, as well as areas related to the study objectives: (i) patterns of CPD practice (i.e. methods of determining own learning needs, criteria for selection of CPD activities, preferred CPD learning activities); (ii) attitudes towards CPD; (iii) adherence to CPD requirements; (iv) facilitators and barriers to engaging with CPD; (v) perceived impact of CPD; and (vi) implications for MoL. The questionnaire primarily comprised closed-ended questions suitable for ease of scoring and analysis in a large survey. Open-ended questions allowed for alternative responses.

Convenience sampling was used. In June and July 2014, practitioners who were registered with the HPCSA were invited to participate in the online survey (SurveyMonkey, USA) via the communication channels (e.g. websites, short message service (SMS) and email) of the HPCSA, professional associations and higher education institutions. Participants were given 2 weeks to respond and were sent reminders prior to the end of the data collection period. It was not possible to determine how many practitioners received the invitation to participate in the study. A total of 14 572 questionnaires were received.

Data management and analysis

Data cleaning involved removal of 3 257 incomplete questionnaires based on set criteria (<10 of 30 questions answered and 8 duplicates) before exporting to Stata version 13.1 (StataCorp, USA) for analysis. Of the questionnaires included, not all respondents answered every question. Statistical analyses were performed using Pearson χ^2 tests to determine associations between demographics and study variables (barriers, adherence with CPD requirements). A *p*-value of 0.05 was set for statistical significance. Answers to open-ended questions were analysed and no new response categories emerged.

Ethical approval

Ethical approval for the study was obtained from the University of Cape Town Faculty of Health Sciences Human Research Ethics Committee (ref. no. UCT FHS HREC 190/2013).

Results

Results are based on analysis of completed questionnaires by 11 307 respondents, reflecting 6.2% of eligible practitioners. The distribution of respondents was relatively proportional to the registration of practitioners in the various boards, with the highest number of respondents (34%) registered with the MDB (Fig. 1).

The majority (93.8%; *n*=10 093) of respondents worked in SA and were primarily from Gauteng (37.8%), Western Cape (22.1%) and KwaZulu-Natal (14.2%) provinces. Of the respondents, 73.8% were <50 years of age. Most (55.6%) worked in the private sector, with 33.0% in

the public service. Respondents (79.5%) had a Bachelor degree (National Qualification Framework (NQF) level 7 or 8) as a minimum qualification. Table 1 shows selected demographic characteristics.

Patterns of CPD practice

Methods of determining learning needs

Most respondents (91.31%; *n*=11 124) reported being able to determine their learning needs. The most frequently reported methods used were self-assessment and audit of own practice (Fig. 2). Other approaches, while not currently used, were considered potentially useful.

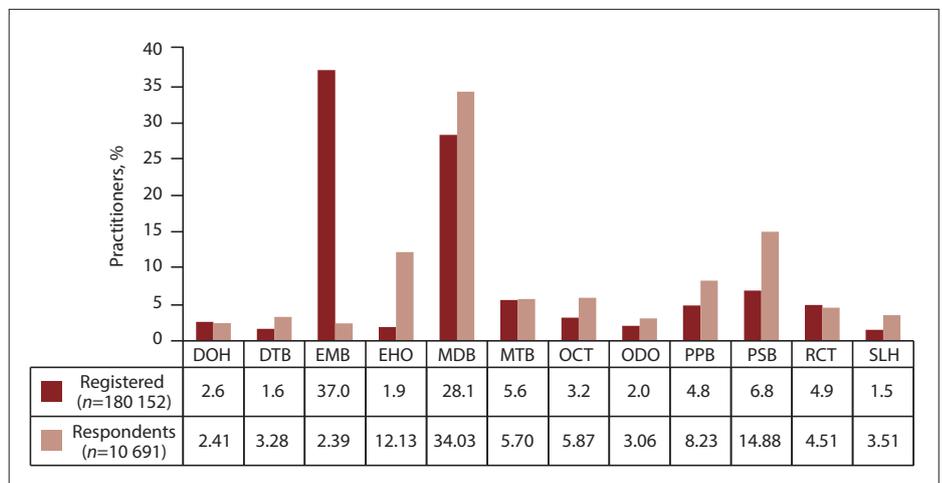


Fig. 1. Distribution of respondents across the various professional boards. (DOH = Dental Therapy and Oral Hygiene; DTB = Dietetics and Nutrition; EMB = Emergency Care; EHO = Environmental Health; MDB = Medical and Dental; MTB = Medical Technology; OCT = Occupational Therapy, Medical Orthotics Prosthetics and Arts Therapy; ODO = Optometry and Dispensing Opticians; PPB = Physiotherapy, Podiatry and Biokinetics; PSB = Psychology; RCT = Radiography and Clinical Technology; SLH = Speech, Language and Hearing.)

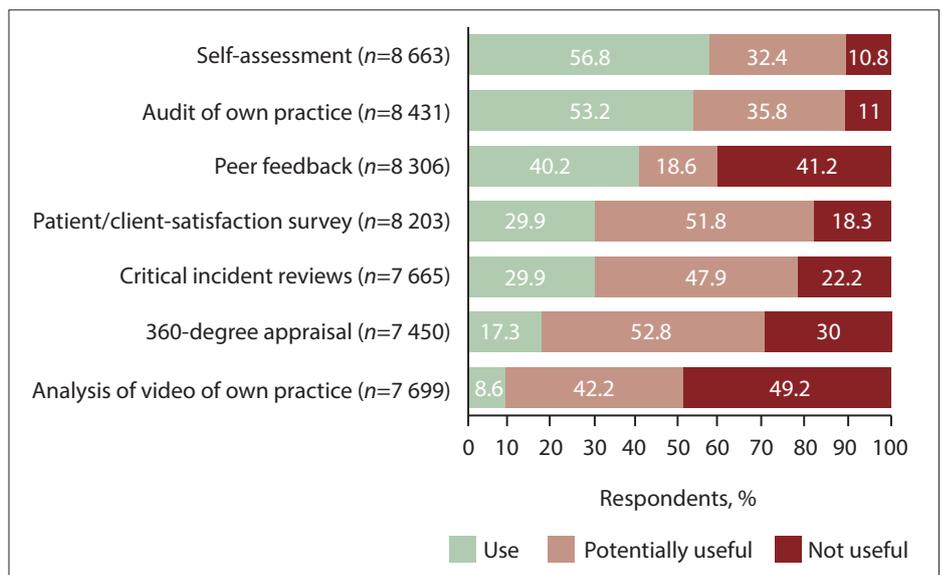


Fig. 2. Methods of determining learning needs.

Criteria for selection of CPD topics

Respondents selected CPD topics based on their areas of interest (80.2%) and expertise (72.8%). Fewer respondents selected topics based on lack of expertise (64.6%), knowledge gaps (66.1%) and skills gaps (61.8%), while 43.3% selected topics from a broad range.

Nature of CPD learning activities

Workshops, lectures and conferences (level 1 activities) were most frequently selected (Fig. 3). Clinical audit, publications, postgraduate study and videos with multiple-choice questions (MCQs) were less frequently chosen.

Table 1. Demographic characteristics of survey respondents

Demographic characteristics	%
Urban/rural work location (n=11 129)	83/17
Female (n=11 194)	59.9
Age, years (n=11 129)	
≤29	20.0
30 - 39	32.4
40 - 49	21.4
50 - 59	15.9
60 - 65	5.6
>65	4.7
Member of a professional association (n=10 718)	83.7
Highest qualification obtained (n=11 165)	
Advanced/higher certificate (NQF 5)	10.6
Diploma (NQF 6)	9.9
Degree (NQF 7/8)	37.4
Postgraduate diploma (NQF 8)	10.0
Masters/specialist and subspecialist (NQF 9)	28.1
PhD (NQF 10)	4.0

NQF = National Qualifications Framework.

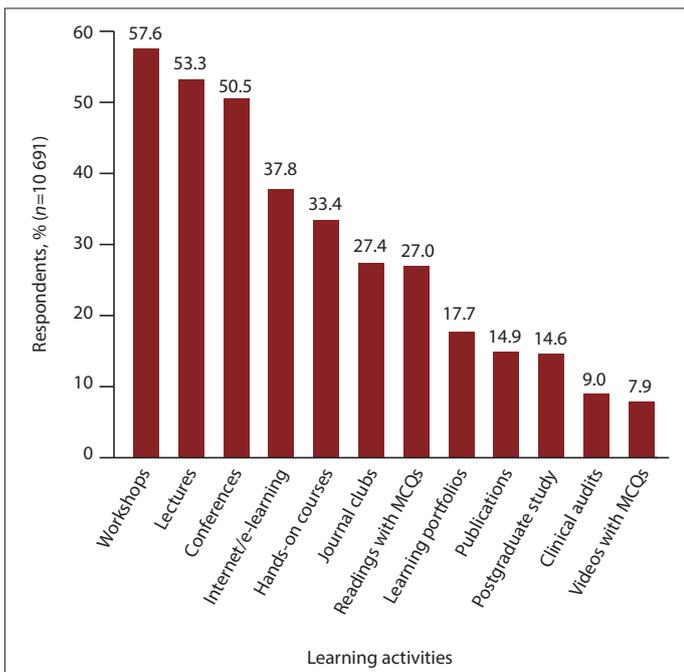


Fig. 3. Nature of continuing professional development learning activities selected. (MCQs = multiple-choice questions.)

Self-reported adherence with CPD requirements

Nationally, 47.6% (n=10 995) of respondents had been selected for a CPD audit (an HPCSA administrative process that randomly selects practitioners and requires them to submit evidence of compliance with CPD requirements) during the previous 3 years, with 97.94% responding and 82% reporting adherence. For those working outside SA, 46% (n=595) were audited by the HPCSA and 92.5% were adherent. Generally, there were high levels of reported adherence with CPD requirements. Adherence was significantly associated with higher qualifications ($\chi^2(5, n=10\ 313) = 212.04; p < 0.001$), membership of a professional association ($\chi^2(1, n=9\ 956) = 198.54; p < 0.001$) and involvement of the employer (Table 2).

Attitude towards CPD

Two-thirds (66.1%; n=10 485) of respondents indicated that the number of CEUs expected was 'about right', while 30.6% felt that this requirement was too high. At least two-thirds (67.5%) indicated that CPD had to be done because it is a statutory requirement, and 12.8% considered CPD to be a waste of time.

Barriers to engaging with CPD

Barriers to participating in CPD activities were reported by 55.8% (n=10 093) of respondents. The cost and location of CPD activities, loss of work days and difficulty getting time off work were primary barriers across several professional boards (Table 3). Cost as a barrier was reported by >50% of respondents in 7 of the 12 professional boards, particularly by females ($\chi^2(1, n=5\ 910) = 68.49; p < 0.001$) and rural respondents ($\chi^2(1, n=5\ 890) = 15.05; p < 0.001$). A total of 575 respondents (5.7%) were unsure of what is expected with regard to CPD.

CPD and the workplace

The workplace supported CPD by offering learning activities (51.7%; n=9 591) and by allowing time off work to engage with CPD (48.15%; n=11 160). Financial support from employers for CPD was more limited (<31%). A quarter of respondents (26.1%; n=11 066) indicated that their employers monitored adherence with CPD requirements.

Perceived impact of CPD

CPD was reported to have improved a broad range of areas (Fig. 4). While a high number of respondents (93%) perceived that CPD resulted in an improvement in knowledge, there was a lower percentage of reports (68%) of improvement in performance.

Implications for maintenance of licensure

Most respondents across professions (62.8%; range 56.2 - 76.8%; n=10 615) supported an expanded CPD system for MoL, including continuing

Table 2. Employer support for CPD and reported adherence

Employer support	Adherence
Offers CPD activities	$\chi^2(1, n=8\ 953) = 130.41; p < 0.001$
Financially supports CPD	$\chi^2(1, n=7\ 787) = 113.21; p < 0.001$
Supports CPD related to practitioners' interest	$\chi^2(1, n=7\ 646) = 148.03; p < 0.001$
Allows time off for CPD	$\chi^2(1, n=8\ 189) = 54.22; p < 0.001$
Monitors adherence	$\chi^2(1, n=8\ 083) = 65.75; p < 0.001$

CPD = continuing professional development.

Table 3. Barriers to participating in CPD across professional boards

Barriers	%	DOH	DTB	EMB	EHO	MDB	MTB	OCP	ODO	PPB	PSB	RCT	SLH
Boards, <i>n</i> (N=10 093)		237	338	1 127	219	3 508	556	615	311	843	1 522	452	365
Cost	45.5	51.1	51.2	32.5	56.6	34.9	32.4	74.8	39.9	63.4	53.6	48.5	67.4
Location	38.6	46.4	44.4	35.3	40.6	31.6	34.4	61.1	37.6	43.4	39.0	44.0	55.3
Loss of workday	29.2	27.9	27.2	19.6	12.3	27.6	15.7	44.1	26.7	39.6	35.2	22.8	43.6
Time off work	23.6	19.8	23.1	25.7	22.4	23.5	29.1	25.5	17.4	18.7	21.6	34.5	20.6
Insufficient ethics activities	16.4	11.0	29.6	17.9	25.1	15.4	21.4	22.8	13.2	13.6	10.8	21.5	15.1
Relevance of activities	14.3	12.2	17.5	8.5	17.8	11.4	11.0	29.6	7.7	16.8	16.2	20.1	18.4
Lack of employer support	11.9	13.5	13.3	16.9	35.6	9.7	16.9	13.7	6.4	8.1	8.2	20.4	9.0
Obtaining CEUs from providers	11.3	8.4	13.9	13.1	20.1	10.5	9.7	19.7	8.0	9.0	9.3	14.2	9.3
HPCSA support	11.2	13.5	12.1	13.6	35.6	9.4	9.4	11.1	8.4	8.1	13.3	12.0	8.2
Quality of CPD activities	8.4	11.0	9.2	8.4	14.2	8.0	6.5	9.3	6.1	10.0	10.4	10.2	8.2
Maintaining own CPD records	8.4	8.4	14.8	7.4	5.5	8.0	9.4	10.2	10.0	7.8	8.8	8.2	6.3
Obtaining attendance records	7.4	6.8	8.3	9.5	9.6	9.0	7.2	6.8	5.8	3.2	5.4	8.6	3.3
Unsure of CPD requirements	5.7	5.9	5.3	9.6	11.0	4.6	7.2	4.7	4.5	3.4	6.7	7.1	1.9

CPD = continuing professional development; DOH = Dental Therapy and Oral Hygiene; DTB = Dietetics and Nutrition Board; EMB = Emergency Care Board; EHO = Environmental Health; MDB = Medical and Dental Board; MTB = Medical Technology Board; OCP = Occupational Therapy, Medical Orthotics Prosthetics and Arts Therapy; ODO = Optometry and Dispensing Opticians; PPB = Physiotherapy, Podiatry and Biokinetics; PSB = Psychology Board; RCT = Radiography and Clinical Technology; SLH = Speech, Language and Hearing; CEU = continuing education units; HPCSA = Health Professions Council of South Africa.

education (88.7%; *n*=10 193), with less support for those elements that entail assessment of performance and competence (Fig. 5).

Discussion

Respondents reflected a diverse group of practitioners across professions, age groups and qualifications and were primarily based in SA, females, in urban areas, <50 years of age, in the private sector and members of professional associations. The lower number of rural respondents may reflect the disparity in distribution of practitioners in urban and rural areas.^[10]

A range of strategies was used to determine learning needs, despite the absence of statutory guidelines, which is an improvement compared with earlier surveys.^[11] Some methods not currently used were considered to be potentially useful. Nevertheless, less than half supported the inclusion of assessments in MoL.

While this study did not explore the nature of self-assessments (the most popular strategy), subjective self-assessments may not be reliable, as practitioners' ability to accurately self-assess is limited, with the worst accuracy among those who were the least skilled and the most confident.^[12] There is consensus that there should be external assessment to evaluate practitioners' competence and performance and guide professional development.^[12-14] As the HPCSA develops MoL, it will be important for its professional boards to support practitioners by developing objective and externally verified tools for assessments.

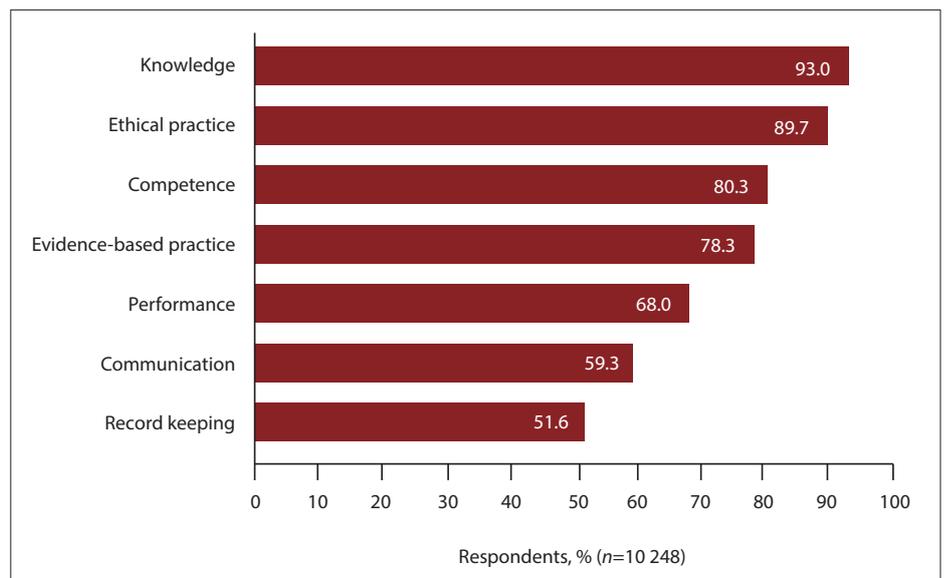


Fig. 4. Areas of practice reported to have improved with continuing professional development.

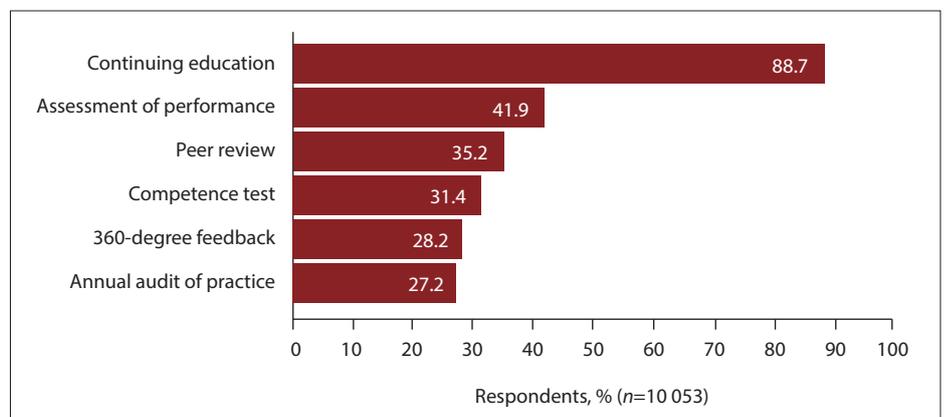


Fig. 5. Support for elements of an expanded continuing professional development programme for maintenance of licensure.

Most respondents chose CPD activities related to their interest and expertise, with fewer selecting learning activities to address gaps in knowledge, skills and expertise. Practitioners often choose to participate in CPD activities within their comfort zone.^[115] Without guidelines and mechanisms to support the identification and selection of CPD learning activities that are appropriate and relevant to practice, it could be suggested that practitioners try to meet the CPD requirements by selecting learning activities in a manner described as opportunistic, erratic or casual.^[116] The impact of CPD activities is limited when undertaken in an *ad hoc* manner outside of a defined structure of directed learning and contributes little to improving practitioners' performance or patient/client health outcomes.^[17] Guidelines on how to develop learning plans that address gaps in knowledge and skills could be beneficial to practitioners in the context of MoL.

The most frequently chosen learning activities were input-based approaches (i.e. lectures, conferences and workshops), which are regarded as simple and cost effective and provide an easily quantifiable method of measuring individual CPD activity.^[17] Systematic reviews suggest that these common, primarily didactic learning activities have a limited effect on improving practitioner competence and performance, and no significant effect on patient and health systems outcomes.^[17,18] CPD activities, which are interactive, provide opportunities to acquire and practice skills,^[19] involve multiple exposures, encourage reflection on practice, and are focused on outcomes, are reported as effective in improving practice and patient health outcomes.^[17]

Respondents generally supported the expected level of engagement with CPD, i.e. the number of CEUs expected annually. The finding that CPD had to be done because it is a statutory requirement, suggests that adherence may be related to the need to be compliant. A small but sizeable group (12.8%) considered CPD to be a waste of time, suggesting a perceived lack of the inherent benefits of CPD. In comparison, only 0.4% of UK physicians surveyed indicated that CPD was unnecessary.^[15] Assisting practitioners to develop individualised CPD programmes that are linked explicitly to improving their professional performance and patient/client health, could result in greater ownership of professional development.^[17]

Cost is a frequently reported barrier to CPD.^[20-23] Female and rural practitioners experienced cost as a greater challenge. Strategies to reduce costs should be explored, e.g. self-study activities^[24] aligned with identified learning needs. Challenges in accessing CPD activities due to the location in which they are offered, are common,^[11,21,22] as was time off from work to attend CPD activities.^[21,22,25,26] CPD providers could be encouraged to make their offerings available through a variety of delivery modes, including online initiatives,^[24] such as webinars and podcasts. Mechanisms to address the quality and relevance of learning activities, as well as administrative barriers that practitioners experience, need to be considered.

Workplace support for CPD in offering or allowing time off for CPD, was significantly associated with self-reported adherence. In SA, where CPD compliance is a statutory requirement for health practitioners, it is of concern that not all employers provide support. It is in the interest of employers and patients/clients that practitioners are up to date regarding professional knowledge and skills.^[16,17] Employers should be encouraged to support their practitioners' engagement with CPD.

CPD was perceived to improve knowledge more than performance. CPD activities are frequently not designed to promote clinical behaviour change,^[27] with delays of 5 - 50 years in the translation of acquired knowledge into practice.^[17,28] It is estimated that 30 - 40% of patients/clients do not receive care that is informed by best evidence, and 20 - 50% receive inappropriate care.^[17] CPD activities should increasingly be designed to meet the standard for improving practice and health outcomes.

There was support for an expanded CPD system for MoL to include continuing education activities, with much less support for other essential components of MoL, i.e. peer review, audit of practice and multisource feedback. Although respondents engage with such practices voluntarily, they are less supportive of these in a mandatory MoL environment, which could reflect perceived threats associated with review, assessments and meeting requirements for licensure in a formalised system. As these elements are part of the international components of MoL, work needs to be done to familiarise SA healthcare practitioners with requirements to move from the acquisition of knowledge to that of skills and improvement of performance.

Study limitations

Convenience sampling introduced bias. The results are based on a small sample of registered practitioners and exclude those without electronic access, leading to coverage bias.^[29] Selection bias is inherent to such a survey^[30] and could explain the high adherence. The results reflect the perceived impact of CPD and not the objectively measured impact. Practitioners' perceptions of whether they support the introduction of MoL and its implications were not explored.

Conclusion

Respondents to the online survey included 11 307 health practitioners across all 12 HPCSA professional boards, with most being females, in urban areas, <50 years of age, in the private sector and in SA. Self-assessment, which has inherent limitations, was the most frequent method used to determine learning needs, with other approaches considered potentially useful. CPD topics were selected based on interest and expertise, with fewer topics related to lack of expertise and knowledge gaps. Workshops, lectures and conferences were the most popular CPD learning activities; these are known to have a limited effect on patient and health systems outcomes. Self-reported adherence was high and linked to membership of professional associations and involvement of the employer in supporting CPD. Employers should be encouraged to support their practitioners' engagement with CPD. Barriers included cost and location of CPD activities, and strategies to address these could include expanding the range of CPD activities to comprise self-study and online activities. In the transition to MoL, practitioners would need to be supported in determining their learning needs by devising and making available objective and valid assessment tools of competence and performance, such as 360-degree appraisals, peer review and online assessments of knowledge. Guidelines for learning plans should be developed to assist practitioners to tailor their programme of learning to address gaps and meet expected standards. Accreditation of CPD activities should require them to be interactive, provide opportunity to acquire and practise skills and be focused on improving performance and

patient outcomes. Limitations of the study include the use of convenience sampling that probably led to bias, only the perceived impact of CPD could be described and support for the introduction of MoL was not explored.

Declaration. None.

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Author contributions. SAS and TDF: substantial contribution to the conceptualisation and design of the study, analysis and interpretation of data, write-up of the article, and approval of the version to be published.

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Conflicts of interest. SAS was chair and TDF a member of the HPCSA's CPD committee at the time of the survey. Both authors are currently working on a MoL framework with the HPCSA.

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