# Views of frontline service providers on the accreditation of occupational health services in South Africa

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## ABSTRACT

***Background:*** In South Africa, occupational health services are delivered in a fragmented and complex environment. There is, however, a global emphasis on high-quality, universal occupational health coverage.

***Objective:*** To describe occupational health practitioners' perceptions of the accreditation of occupational health services.

***Methods:*** We used a mixed methods approach, which combined a self-administered web-based survey of 475 occupational health nurses and 11 semi-structured focus group discussions, which included a broad selection of occupational health stakeholders.

***Results:*** The majority of respondents supported the statutory accreditation of healthcare services for workers, provided that a phased approach is used. Challenges that need to be addressed for a successful and sustainable accreditation system include the current lack of national standards for occupational health, human resource shortages, potentially high costs of accreditation, and the suboptimal and fragmented governance of occupational health services.

***Conclusion:*** The majority of respondents were of the opinion that statutory accreditation of occupational health services will improve the quality of service delivery. However, prerequisites for successful and sustainable implementation of accreditation include improved collaboration between Government departments, coalition building with all stakeholders, the development of specific standards against which a service can be assessed, and education and training of occupational health practitioners to meet the established standards.

## INTRODUCTION

Responding adequately to globalisation, the changing nature of work and the need to achieve social sustainability requires the development and provision of quality occupational health services (OHSs), aligned with international standards and guidelines to ensure the health and wellbeing of workers.[1-3] Convention No. 161 of the International Labour Organization (ILO) defines OHSs as *"services entrusted with essentially preventive functions and responsible for advising the employer, the workers and their representatives on the requirements for establishing and maintaining a safe and healthy working environment, which will facilitate optimal physical and mental health in relation to work, and the adaptation of work to the capabilities of workers in the light of their state of physical and mental health".*[4]

Occupational health services play an important role in the prevention and control of occupational injuries and diseases, as well as occupational rehabilitation. However, there is global recognition that access to these services is suboptimal.[5,6] Notwithstanding the importance of access to OHSs, there is global recognition that access to quality services is necessary to meet the United Nations' Sustainable Development Goals (SDGs).[7] A critical component of the SDGs is the provision of high-quality care that achieves improved health outcomes, and that is responsive to the needs of people, especially in low- and middle-income countries (LMICs),[7] through all modes of healthcare delivery.

There are numerous approaches to quality improvement that could be implemented at different levels or in different settings. These include regulatory approaches, health professional education, and quality improvement of service delivery.[8,9] Some scholars have argued that an accreditation programme is an important driver for the provision of high-quality care in LMICs because it facilitates the establishment of systems that determine and apply standards, assessment of provider compliance with these standards, and continuous quality improvement in line with changing contexts of service delivery.[10]

Accreditation refers to a formal process by which a recognised body assesses and confirms that a healthcare organisation or establishment meets pre-determined and published standards that are regarded as optimal and achievable.[11] Certification refers to a process by which an authorised body evaluates and recognises either an individual or an organisation as meeting pre-determined requirements or criteria.[11] Although the two terms are often used interchangeably, certification usually refers to a mandatory process for individuals and organisations, whereas accreditation tends to be voluntary and applied only to an organisation.[12] Nonetheless, there is an increased tendency for governments to move away from voluntary independent accreditation in favour of the use of accreditation as an extension of the statutory licensing of institutions.[13,14]

The value of accreditation has been contested[15-17] and studies in LMICs have found that accreditation improves compliance but does not necessarily improve quality of care.[18,19] The arguments in favour of accreditation in healthcare include improvement in quality, safety and clinical performance; enhancement of organisational functioning; development of teamwork; practice reflection beyond just service delivery; and improved compliance with standards.[19-21] The counter-arguments include the costly and bureaucratic nature of the process;

that standards are often inappropriate with inconsistent interpretation from one survey to the next; and that surveyors or accreditors themselves often lack knowledge and understanding of the process.[8,16,22] Despite differing opinions on the benefits of accreditation, it has been demonstrated that where accreditation is implemented, performance improvement is noted,[23,24] and that the process is important for the evolution of healthcare establishments.[22]

In democratic South Africa, occupational health and safety has been identified as a priority area for transformation.[25] Progress has been made in improving occupational health and safety, but significant challenges still remain in many sectors where there are high risks of exposure, human and financial resource constraints, and the lack of a holistic approach to service delivery.[26] Furthermore, OHSs are delivered within a fragmented and complex legislative framework, governance is suboptimal,[27] and key stakeholders perceive the quality of services to be poor,[28] creating a concern about the ability to deliver quality occupational healthcare.

In 2014, the Office of Health Standards Compliance (OHSC) was established through an Act of Parliament as a healthcare quality regulator to protect and promote the health and safety of health service users, through the effective management of patient complaints and the enforcement of compliance to prescribed norms and standards.[29] The OHSC certification process involves the inspection of healthcare establishments against a set of regulated standards that draw from the national core standards (NCSs).[29] Only certified establishments will be able to participate in the National Health Insurance (NHI) system – the vehicle proposed to achieve universal health coverage in South Africa.[30] The process of inspections and certification of healthcare establishments is in its early stages. Occupational health clinics, which deliver healthcare services to workers, have been excluded from the initial phase of inspections and certification, with their inclusion envisaged in the future.

In South Africa, occupational health practitioners (OHPs) are diverse and include doctors, nurses, hygienists, ergonomists, psychologists and toxicologists, amongst others – all with specialised training to deliver OHSs to workers. Doctors and nurses as occupational healthcare providers were the focus of this study. They are critical to the delivery of OHSs in various industries and will play a key role in the implementation of any new accreditation programme. Policy implementation theorists have argued that a more realistic understanding of implementation can be gained by exploring the policy (in this case, accreditation) from the perspective of the frontline service providers (in this case, the doctors and nurses) or street-level bureaucrats (SLBs) (service providers who interact with citizens in the course of their work, and have substantial discretion in the execution of their work).[31] The actions and decisions of frontline service providers influence the nature and direction of policy implementation, as they may support or sabotage the accreditation programme.[31]

This research drew on Michael Lipsky's policy implementation theory of 'street-level bureaucrats' to explore the perceptions of occupational health practitioners (doctors and nurses) on the accreditation of OHSs in South Africa. These perceptions provide insight into the implementation challenges for the future certification of OHSs.

## METHODS

A cross-sectional study was conducted in 2014, using a mixed methods approach. Quantitative data were collected through a web-based survey and qualitative data through focus group discussions (FGDs). The study population comprised direct providers of occupational healthcare in South Africa, specifically doctors and nurses involved in OHS delivery. As there was no reliable database of occupational health practitioners in South Africa[32] the membership lists from the two relevant voluntary professional societies, i.e. the South African Society of Occupational Health Nursing Practitioners (SASOHN) and the South African Society of Occupational Medicine (SASOM), were used to identify potential participants. The societies were approached for a list of all members registered on their databases; these practitioners constituted the sampling frame for the survey. The SASOHN 2014 database of 1 292 members was made available after signing a confidentiality and limitation-of-use agreement. The SASOM was not willing to make its database available based on member confidentiality but offered to send the questionnaire to their 791 members. E-mails were sent by the SASOM office administrator who confirmed that, after failed deliveries, the e-mail was successfully delivered to 719 members. In an effort to improve the doctors' response rate, occupational health nurses were encouraged to invite the doctors with whom they worked to participate in the study.

### Web-based survey

The survey was designed as a web-based, self-administered questionnaire using REDCap (Research Electronic Data Capture) a secure, web-based application designed to support data capture for research studies[33] Based on the literature review, questions were developed to include sections on socio-demographic information and practitioners' perceptions of accreditation. Various questioning techniques were used in the survey, including dichotomous, multiple-choice, ranking, and rating questions. Participants were presented with a series of comments relevant to the impact of accreditation on healthcare and asked to rate their agreement or disagreement with the statements on a seven-point Likert scale, ranging from 'strongly disagree' to 'strongly agree'. These statements presented both positive and negative impacts of accreditation on healthcare as identified in the literature review. A code book was developed at the time that the questionnaire was developed to facilitate data analysis. The questionnaire was pre-tested with five occupational health nursing practitioners who met the selection criteria but did not participate in the study.

All SASOHN members were sent an initial short message service (sms) to notify them that the survey had been launched and requesting that they verify their contact details. Participants had the option to complete the survey online, using the public link provided or a personalised code that was sent via sms. Weekly reminders were e-mailed and sent via sms to all potential participants who had not completed the survey. Those who declined to participate were asked to answer 'no' in the consent section; this removed them from the reminder list.

### Focus group discussions

The purpose of the FGDs was to gather information from various stakeholders regarding their perceptions of the impact and need for accreditation of OHSs in South Africa. An interview guide was developed to ensure that all topics were explored. The guiding questions focused on perceptions of the need to establish an accreditation system for OHSs in South Africa, the impact that an accreditation system might have on OHS delivery, the challenges posed by such a system, and how accreditation could be implemented.

Based on the concentration of major industries, geographical access, and budgetary constraints, FGDs were conducted in three

**Table 1. Characteristics of occupational health nurses (N = 475)**

| Characteristic | n | % |
|---|---|---|
| Sector | | |
| Private | 423 | 89.1 |
| Public | 33 | 6.9 |
| Both | 19 | 4.0 |
| Any OH qualification | | |
| Yes | 420 | 88.4 |
| No | 55 | 11.6 |
| Highest OH qualification | | |
| Certificate | 122 | 25.7 |
| Diploma | 141 | 29.7 |
| Degree | 154 | 32.4 |
| Missing | 3 | 0.6 |
| Not applicable | 55 | 11.6 |
| Model of employment | | |
| Corporate employee | 128 | 26.9 |
| Employed by company | 149 | 31.4 |
| Service provider | 136 | 28.6 |
| Self-employed | 61 | 12.8 |
| Missing | 1 | 0.2 |
| Facility type | | |
| Fixed site | 380 | 80.0 |
| Mobile facility | 22 | 4.6 |
| Fixed and mobile | 54 | 11.4 |
| Missing | 19 | 4.0 |
| No. of sites served | | |
| 1 | 225 | 47.4 |
| 2 | 68 | 14.3 |
| ≥ 3 | 139 | 29.3 |
| Missing | 43 | 9.1 |
| No. of workers covered | | |
| < 300 | 89 | 18.7 |
| 301–500 | 81 | 17.1 |
| 501–1 000 | 92 | 19.4 |
| 1 001–3 000 | 98 | 20.6 |
| 3 001–5 000 | 32 | 6.7 |
| > 5 000 | 52 | 11.0 |
| Missing | 31 | 6.5 |
| Highest assessment level | | |
| Accreditation | 94 | 19.8 |
| Award system | 156 | 32.8 |
| Peer review | 43 | 9.1 |
| Customer survey | 27 | 5.7 |
| Self-assessment | 2 | 0.4 |
| No assessment | 116 | 24.4 |
| Missing | 37 | 7.8 |

South African provinces, viz. Gauteng, KwaZulu-Natal and the Western Cape. The inclusion criterion for participation in the FGDs was occupational health expertise or professional interest in occupational health, which ensured broad representation from professional bodies, trade unions, current occupational health practitioners, and employers from a range of industries. Organisation of focus groups was based on homogenous representation in occupational health, e.g. groups of doctors, nurses, or employers, to allow a deep exploration of each group's perceptions. Potential participants were sent e-mails requesting their participation. If they agreed to participate, a date and time for the FGD were communicated to them. One researcher (KEM) conducted 11 FGDs in the provinces of KwaZulu-Natal (n = 2), Western Cape (n = 2) and Gauteng (n = 7), comprising 69 participants from various stakeholder groups. The duration of each focus group was approximately one hour, but varied depending on the number of, and discussion among, participants.

The University of the Witwatersrand's Human Research Ethics Committee (Medical) provided ethical approval for the study (certificate no. M140442). Standard ethical procedures were adhered to, including full disclosure through information sheets, informed consent to record and participate in the focus groups and to complete the survey, and assurance of confidentiality. Anonymity was not possible for the members of the focus groups, but all participants were requested to keep information confidential.

### Data management and analysis

Survey responses were captured directly into REDCap. All survey data were analysed using STATA® 14. Frequency tabulations were performed to describe respondents' socio-demographic characteristics and responses to the questions on perceptions of accreditation. Due to the poor response rate, the Likert scale categories were reduced from seven to three, i.e. 'disagree', 'neutral' and 'agree'. Cronbach Alpha coefficients were used to determine validity and reliability of the Likert scales. Scores of 0.82 and 0.90 were obtained for validity and reliability, respectively, indicating that the scales had high internal consistency. Interviews were digitally recorded, transcribed verbatim, and reviewed for accuracy. The FGD data were analysed using thematic content analysis. The survey data on accreditation were integrated with responses from the FGDs.

## RESULTS

### Survey responses

The survey response rate was 36.8% (475/1 292) for nurses and 2.7% (21/791) for doctors, with an overall response rate of 23.8% (496/2 083). The low response rate from doctors (n = 21) resulted in their exclusion from the analysis.

The median age of the nurses was 50 years (29 to 70 years). The median duration of occupational health experience for the nurses who responded (n = 472) was 14 years (< 1–40 years). Table 1 shows the demographic profile of the respondents. The majority of nurses (88.4%) reported having a post-basic qualification in occupational health nursing, ranging from a certificate to a doctoral degree. Furthermore, respondents were employed predominantly through OHSs in the private sector (89.1%). Respondents described various models of service delivery, with the majority working in fixed-site facilities (80.0%). More than half the respondents (67.8%) reported experience of some form of OHS assessment, of which 32.8% reported participation in an award system, while 19.8% experienced assessment for accreditation.

As shown in Table 2, the majority of study participants (82.5%) were of the opinion that OHSs should be subjected to accreditation as a statutory requirement (63.0%); that accreditation should be phased in over a two-year period (51.8%); that facilities should be reassessed

every two years (33.1%); and that an achieved accreditation status should be valid for two years (34.5%). Almost half of those who responded were of the opinion that the National Institute for Occupational Health (NIOH), an internationally recognised institute to support OHSs in South (and southern) Africa, should govern the accreditation process (38.1%). Respondents believed that workers would benefit most from accreditation.

The Likert scale results are presented in Table 3. Sixty respondents did not answer this section of the survey. The majority of participating nurses generally agreed with the statements regarding the potential positive impact of OHS accreditation. The majority also agreed that accreditation could improve the quality of OHSs (92.1%), provide a database to identify preferred service providers (90.1%), and demonstrate that service providers comply with recognised standards (93.7%). The responses to negative impact questions in the survey were more evenly distributed between 'agree', 'disagree', and 'neutral' categories. Two-thirds of the participants (67.0%) agreed that the lack of understanding of how to implement and comply with accreditation programmes makes participation difficult.

### Themes emerging from focus group discussions

The broad themes that emerged from the thematic content analysis of the FGDs were the perceived value of OHS accreditation, implementation challenges, and the gap between accreditation and implementation.

#### *Perceived value of OHS accreditation*

Participants were of the opinion that statutory accreditation would improve the quality of OHSs through the identification of weaknesses in service delivery, the provision of opportunities for continuous improvement, the standardisation of services aligned to minimum standards of performance, the forcing of non-compliant services to improve their quality or cease operating, and by stimulating a proactive approach to quality OHS delivery. Participants indicated that the current suboptimal governance of OHS delivery had led to scant focus on the quality of services, as practitioners were able to practise with no perceived consequences for poor service delivery. As stated by one occupational health nursing practitioner (OHNP):

> *"There is no control* [referring to OHS delivery]. *Everybody does what they want, and it very much depends on the individual who takes the initiative and says this is what we need to have in place* [referring to quality OHSs], *and sometimes it is driven by the company because they are proactive and they want it* [referring to OHS quality] *to fit in with their quality standards, and other times it's just random…"* (FGD 3, OHNP, Cape Town)

Participants who had previously engaged in some form of external assessment supported accreditation, stating they had experienced the positive impact that external inspections could have on service delivery.

> *"I think all these audits we go through at my company every year keep me on my toes and make me see the need to keep myself up to date. I need to do the correct testing, and keep the records of all hazardous chemicals, and do monitoring."* (FGD 3, OHNP, Cape Town)

**Table 2. Nurses' perceptions of accreditation and standards awareness (N = 475)**

| Question/statement | n | % |
|---|---|---|
| OHSs should be accredited | | |
| Yes | 392 | 82.5 |
| No | 26 | 5.5 |
| Missing | 57 | 12.0 |
| Should accreditation be statutory or voluntary? | | |
| Statutory | 299 | 63.0 |
| Voluntary | 107 | 22.5 |
| Missing | 69 | 14.5 |
| Who would benefit most from accreditation? | | |
| Workers | 232 | 48.8 |
| Practitioners | 91 | 19.2 |
| Employers | 59 | 12.4 |
| Regulators | 25 | 5.3 |
| Others | 11 | 2.3 |
| Missing | 57 | 12.0 |
| Who would benefit least from accreditation? | | |
| Others | 156 | 32.8 |
| Regulators | 111 | 23.4 |
| Employers | 54 | 11.4 |
| Practitioners | 54 | 11.4 |
| Workers | 43 | 9.1 |
| Missing | 57 | 12,0 |
| Who should implement OHS accreditation? | | |
| National Institute for Occupational Health | 181 | 38.1 |
| Private organisation | 54 | 11.4 |
| Office of Health Standards Compliance | 46 | 9.7 |
| South African Bureau of Standards | 45 | 9.5 |
| Department of Employment and Labour/ Mineral Resources and Energy | 42 | 8.8 |
| Department of Health | 27 | 5.7 |
| Other | 15 | 3.2 |
| Missing | 65 | 13.7 |
| Frequency of accreditation assessments | | |
| Once-off | 11 | 2.3 |
| Annual | 130 | 27.4 |
| Biennial | 157 | 33.1 |
| Triennial | 98 | 20.6 |
| > Triennial | 13 | 2.7 |
| Missing | 66 | 13.9 |
| Validity of accreditation (years) | | |
| 1 | 88 | 18.5 |
| 2 | 164 | 34.5 |
| 3 | 132 | 27.8 |
| No expiry date | 24 | 5.1 |
| Missing | 67 | 14.1 |
| Phasing-in period for accreditation (years) | | |
| 2 | 246 | 51.8 |
| 3 | 103 | 21.7 |
| > 3 | 58 | 12.2 |
| Missing | 68 | 14.3 |
| Awareness of NCSs | | |
| Yes | 309 | 65.1 |
| No | 159 | 33.5 |
| Missing | 7 | 1.5 |
| NCSs relevant to occupational health | | |
| Yes | 206 | 43.4 |
| No | 36 | 7.6 |
| Unsure | 224 | 47.2 |
| Missing | 9 | 1.9 |

NCSs: national core standards, OHS: occupational health service

Focus group discussants believed that statutory accreditation with appropriate sanctions is necessary to ensure that all providers are compelled to participate.

### *Perceived Implementation challenges*

Notwithstanding the support for OHS accreditation, participants were of the view that there would be challenges to the implementation and sustainability of the process. As stated by two FGD participants:

> *"The reality is that the International Standards Organization and South African Bureau of Standards audits are very expensive. So, you need someone who has credibility, who has legal standing but at the same time must be cost effective. So that's a challenge as the marginalisation of the small provider is not what we are trying to achieve."* (FGD 2, OHNP, Durban)

> *"I applaud the idea of some sort of regulatory background but it will have to be housed very smartly* [referring to how accreditation should be implemented] *otherwise it is going to be a massive impediment to our country."* (FGD 11, OMP, Johannesburg)

Governance and enforcement of occupational health legislation and regulations were perceived as weak, with no mechanism in place to identify where OHSs had been established. This challenges the ability to identify and audit facilities that are providing OHSs.

> *"What would be the consequence of non-compliance? And how would you regulate non-conformance because if you don't have a system that requires an occupational health clinic is registered somewhere how are you going to know what clinics are actually being established and that would have to be accredited? You need to have some form of regulation before you even start with accrediting services."* (FGD 3, OHNP, Cape Town)

Participants thought that Government departments had a poor track record of intersectoral collaboration and they questioned whether Government had the capacity to manage an accreditation system that requires strong intersectoral collaboration and enforcement.

Resource constraints, especially finance and human resources, were a recurring FGD theme. Participants noted that non-healthcare professionals lack the requisite insight into OHS delivery, but were often used as surveyors by the Department of Employment and Labour. This led to the measurement of legal compliance rather than quality of service, which was unacceptable in their views. The use of specialised occupational health practitioners, experienced and skilled in OHS delivery, to fulfil the auditing function was the preferred method of assessment. Yet, it was acknowledged that removing practitioners from the occupational health clinics would exacerbate a situation predisposed to the use of non-specialised practitioners, due to the paucity of occupational health specialists.

> *"I think the idea of accreditation is fantastic, and the various levels* [referring to a phased-in approach] *would make it work very well. But if we are already short of practitioners to actually run the clinics, where are we going to find competent, skilled, experienced people that are able to do these audits… and that would be a challenge."* (FGD 3, OHNP, Cape Town)

One participant cited an example of company efforts to develop an audit system, which failed due to resource constraints.

> *"It's a big thing to do* [referring to implementing accreditation]*… We spent hours and hours drafting a standard to audit our occupational health clinics and it is not an easy task. We couldn't implement it because we didn't have the resources."* (FGD 8, OMP, Johannesburg)

Occupational health services are viewed by industry as an expense that adds little value, so requiring additional resource outlay may create a situation where services are marginalised.

> *"Some companies already can't survive because the clinic in their eyes doesn't add any monetary value to the company over and above the fact that the people* [referring to workers] *are healthy and they can give an output. But you don't bring in any revenue.*

**Table 3. Statements on the impact of accreditation (N = 415)**

| Statement | Disagree | | Neutral | | Agree | |
|---|---|---|---|---|---|---|
| | n | % | n | % | n | % |
| **Positive** | | | | | | |
| Will improve the quality of OHSs | 24 | 5.8 | 9 | 2.2 | 382 | 92.1 |
| Will provide a database of preferred OHPs with accreditation status | 28 | 6.8 | 13 | 3.1 | 374 | 90.1 |
| Will decrease risks of injury/illness to workers and practitioners | 92 | 22.2 | 55 | 13.3 | 268 | 64.6 |
| Will reduce healthcare cost due to improved healthcare delivery | 94 | 22.7 | 47 | 11.3 | 274 | 66.0 |
| Will improve clinical outcomes for client | 33 | 8.0 | 23 | 5.5 | 359 | 86.5 |
| Will strengthen workforce confidence in the OHSs | 33 | 8.0 | 28 | 6.8 | 354 | 85.3 |
| Will acknowledge the OHS performs at a recognised standard | 17 | 4.1 | 9 | 2.2 | 389 | 93.7 |
| **Negative*** | | | | | | |
| It is too expensive to implement | 150 | 36.4 | 107 | 26.0 | 155 | 37.6 |
| It is too complicated to follow | 202 | 49.0 | 92 | 22.3 | 118 | 28.6 |
| Compliance criteria are inappropriate for OHSs | 190 | 46.1 | 119 | 28.9 | 103 | 25.0 |
| Insufficient resources are made available | 139 | 33.7 | 91 | 22.1 | 182 | 44.2 |
| Employer sets unrealistic expectations, making participation difficult | 164 | 39.8 | 111 | 26.9 | 137 | 33.3 |
| Poor understanding makes participation in accreditation programmes difficult | 89 | 21.6 | 45 | 10.9 | 278 | 67.5 |

OHP: occupational health practitioner, OHS: occupational health service
* The denominator differs as three participants did not respond

> …*If the requirement is now that you have to pay to be audited that you're compliant, it can have detrimental effect. Because then they* [referring to company owners] *will … give you a nurse for one or two hours* [referring to outsourcing services] ... *I definitely do think that it could have a very big detrimental effect on OHS delivery."* (FGD 10, OHNP, Johannesburg)

Participants also indicated that the lack of national standards for OHSs would hamper any accreditation programme, and that there was a need for national occupational health standards that accommodate the complexity of OHS delivery.

### *Perceived gap between accreditation and implementation*

Stakeholders supported the accreditation of OHSs, but indicated that the constraints would need to be overcome to achieve sustainability. Participants agreed that a single Government structure, such as the NIOH, was the appropriate stakeholder to assume this role. However, they noted the current capacity and resource constraints experienced by the NIOH. Many participants were not aware of the OHSC as it was a new body at the time of the study, but the OHSC was considered an option. Nevertheless, some participants thought that the OHSC had insufficient understanding of OHSs and would need to engage experienced occupational health experts to develop sector specific standards and assist with the assessment of facilities.

Study participants proposed a realistic timeframe to align OHS delivery to the national standards and recommended a phased-in approach for accreditation. Such an approach could consist of the development of a register of OHS providers, education and training of OHS practitioners, sufficient opportunity and orientation to comprehend accreditation requirements, opportunities to improve service delivery where necessary, undergo an accreditation assessment, and address any deviations or non-conformances that were identified.

## DISCUSSION

Since the advent of democracy, South Africa has undertaken significant healthcare reforms in its move towards improved universal health coverage and quality of care.[34] Occupational health services have lagged behind in these reforms, and years of historical neglect have contributed to underdeveloped and poorly accessible OHSs,[30,35] to the point where the quality of services is deemed suboptimal.[28] South Africa has opted to improve quality of healthcare through the statutory certification of healthcare establishments (HCEs), compliant with recognised NCSs.[36] To date, OHSs have been excluded from this process but their inclusion is envisaged in the future as healthcare establishments other than hospital settings will be included in the certification process. The success of this policy change will be largely determined by the attitudes of OHPs as SLBs. Lipsky describes SLBs as the policy implementers[31] and, within the occupational health context, OHPs are responsible for frontline implementation of OHS policy, and have the ability to embrace or sabotage policy initiatives. The participants in this study, as specialised OHPs with a range of post-basic qualifications and experience in occupational health, expressed overwhelming support of (82.5%), and a positive attitude towards, accreditation of OHSs.

No empirical studies could be found to describe the impact of accreditation on OHSs in LMICs. The limited empirical studies exploring accreditation of OHS delivery in high-income countries have described similar positive impacts on service delivery as explored in this study, although to varying degrees and in limited settings, i.e. improved quality of service.[37,38] In addition, accreditation has seen the removal of non-compliant service providers from service delivery,[39] which could compound an already existing shortage of service providers. It is, however, noted that the accreditation system in the Netherlands was abandoned by Government in 1998 and transferred to a third party due to the lack of ability to enforce inspections, something that South Africa should consider when strengthening governance.

Participants believed that not making accreditation a statutory requirement would undermine the ability to improve the current suboptimal quality and governance of OHSs, and that all services should be assessed for compliance with prescribed standards – not only those that choose to participate in accreditation programmes. This notion is supported by findings that the voluntary uptake of accreditation by OHS providers, globally, has not been realised in the past[40] and may well be perpetuated without statutory enforcement.

The Council for Health Service Accreditation of South Africa (COHSASA) is an independent body for voluntary, fee-for-service accreditation of healthcare services, focusing on hospital and district-level services. A search of their website indicated no accredited occupational health clinics, supporting the notion that voluntary accreditation is not taken up in South Africa.[41] In the United Kingdom, OHS accreditation remains voluntary, with many OHS providers participating in the Safe Effective Quality Occupational Health Service (SEQOHS) accreditation process and using the outcome as a marketing tool to indicate provision of quality services. SEQOHS accreditation has led to increased participation of OHS providers but not all providers participate,[42] supporting the notion that statutory accreditation should be the preferred approach to accreditation.

Further motivation for statutory accreditation stems from the belief that accreditation is essential for achieving the desired reform of OHSs to improve quality and governance. Mate et al. (2014) proposed that quality health coverage will only be realised where mechanisms such as accreditation are successfully implemented, especially in LMICs,[21] supporting the findings of this study. Within the current South African context of low coverage[5] and variable quality of OHSs, the potential positive outcomes of accreditation described above would be viewed as beneficial.

Based on their knowledge and experience in OHS delivery, the participants in this study described challenges that may negatively impact the success of accreditation. The prerequisites for successful implementation of accreditation are the awareness and ability to address these challenges effectively. Examples of successful approaches to accreditation in both high-income countries and LMICs can be drawn from studies of accreditation in non-occupational healthcare environments[21,43,44] where perceived challenges have been effectively managed.

The lack of occupational health-specific standards was a dominant concern for both survey participants and focus group discussants, who believed that measuring OHSs against general rather than sector-specific standards would be counterproductive. These are valid sentiments, as research has shown that specific standards are critical to the success of an accreditation programme,[43] and that those developed through consultation with relevant stakeholders are better accepted by service providers.[44] The NCSs in South Africa are not specific to the evaluation of OHSs, but the promulgation of draft norms and standards applicable to other categories of HCEs[45] present an opportunity for the professional organisations (SASOHN and SASOM), as representatives of the SLBs, to collaborate with the OHSC and develop standards specific to the occupational health sector.

Resource constraints (financial and human) pose a significant challenge to the success of accreditation. Currently, OHSs are provided at the discretion of the employer due to the lack of national standards for OHS delivery.[2] Study participants believed that employers often determine the scope of OHSs based on cost, as has been shown in other studies,[46,47] raising the concern that employers may downsize service delivery if additional costs are to be incurred, thereby further reducing the coverage of OHSs. This could be avoided through the cost-effective implementation of a phased approach to accreditation, where service providers are given the opportunity to evolve their services and understanding of accreditation requirements, which lends support to the notion of adapting the NCSs through the OHSC to promote cost-effective accreditation. This perception was motivated by participants' concerns that terminating available services (despite a poor level of quality) for non-compliance to accreditation standards, too hastily, could further marginalise healthcare coverage for vulnerable workers. This perceived marginalisation could be especially true for small- and medium enterprises, which tend to invest little in OHSs.[47] A phased-in approach will allow structures and processes to be established, which will promote improvement in outcomes and quality.[48]

The length of time taken to develop and implement an accreditation programme is typically estimated at 3–5 years.[49] The phased approach allows OHPs to 'ease into' the process, thereby improving the possibility of successful accreditation inspections. Facilities could register and be licensed as OHSs in order to continue offering services while working towards full accreditation status, with a target date for achievement of compliance. Despite the paucity of examples of successful accreditation systems in the occupational health sector,[23,42] the SEQOHS system in the United Kingdom is based on a phased approach where occupational health-specific standards were developed prior to the launching of the programme, surveyors trained, and the system piloted to identify weaknesses.[50] This level of preparation could be a reason that the voluntary uptake of accreditation of OHSs in the United Kingdom is considered a success.

The successful implementation of OHS accreditation is viewed as necessary, and is dependent on the ability of policymakers and stakeholders to collaborate on the introduction of new legislation, changing current enforcement strategies and the rollout of awareness campaigns.[2,15] Intersectoral collaboration, which is deemed inadequate in South Africa,[27] will need to be strengthened in order to enhance success of the accreditation process. The Departments of Employment and Labour, Health, and Mineral Resources and Energy in South Africa are responsible for policy and legislation changes affecting the occupational health and safety sector, but these changes should be effected through collaborative relationships with skilled and experienced stakeholders, i.e. SASOHN and SASOM, whose members' expertise lies in OHS delivery, for effective implementation of change.

Participants were of the opinion that accreditation must be associated with significant consequences for non-compliance, in order to improve quality and ensure participation of all service providers. The deterrent needs to be specific and substantive to be effective[15] and, in the case of OHS providers, the specific deterrence could be an economic incentive through non-sanction of OHSs where certification standards are not achieved.

The NIOH was perceived as being well positioned to assume the lead responsibility for OHS accreditation. However, key informants from the NIOH stated that the Institute lacks the required financial resources necessary to assume this role. Policy initiatives have suggested that the NIOH will receive increased focus as a national occupational health resource in South Africa[51] but it is unclear, at this point, what resources will be allocated to the NIOH to fulfil this function. A practical and cost-effective solution to OHS accreditation is the inclusion of occupational healthcare services into the South African health reforms framework requiring certification, through the OHSC. The following considerations support this notion: all occupational healthcare clinics have been designated as healthcare establishments and should be subjected to the same control as other healthcare establishments; the OHSC is regulated and thus has the necessary legal authority to ensure participation; the required resources to establish the organisation have been made available through the public health sector, i.e. Government, which would reduce the financial impact on the employer; and the assessment system is based on a statutory, phased approach, which would allow OHSs to evolve and meet certification requirements. The professional organisations, through collaboration with the OHSC, could assist with the amendment of existing norms and standards, as discussed, and provide their expertise for the inspection and assessment of OHSs.

### Limitations

The study had a number of limitations. Notwithstanding the low response rate to the web-based survey, the findings provide insight into OHPs' attitudes to accreditation of OHSs in South Africa, which are important for the successful implementation of accreditation programmes. The weaknesses in the quantitative methods were strengthened by the qualitative data collected from the FGDs, which provided insight and explanation for the survey responses; and the diverse representation of stakeholders included in the FGDs, which offered a broader understanding of the perceived challenges to the implementation of accreditation.

Although this study focused on a narrow sector of stakeholders in occupational health, the participating doctors, nurses and other stakeholders provide specialised functions in occupational health and safety. The abilities of doctors and nurses to identify early deviations in health are reliant on quality OHSs. The insights gained from this study can be used to work towards the improved quality of OHS delivery and better access of workers to OHSs in South Africa and globally.

## CONCLUSION

Occupational health as a basic human right should be accessible to all workers through quality OHSs, ensuring that universal occupational health coverage of all workers is achieved. The statutory accreditation of OHSs, phased in over time, and based on occupational health-specific standards for service evaluation, affordable costing structures, and policy and process awareness training for all OHPs, is deemed necessary to ensure the successful implementation of the accreditation of OHSs. These initiatives are supported by OHPs as policy implementers, and bodes well for the future strengthening of OHSs in South Africa.

## KEY MESSAGES

1. Occupational health practitioners support the statutory accreditation of occupational health services because of its potential to improve the quality of service delivery.
2. Adapting South Africa's national core quality standards for occupational health services would be a cost-effective and legally enforced method of achieving quality occupational health services.
3. Improved governance of occupational health service delivery is essential for the delivery of quality occupational health services.

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## AUTHOR CONTRIBUTIONS
Conception and design of the study: KEM, LCR
Data acquisition: KEM
Data analysis: KEM
Interpretation of the data: KEM, LCR
Drafting of the paper: KEM, LCR
Critical revision of the paper: KEM, LCR

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