

Are graduate optometrists in South Africa practice ready?



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Background: Recent graduates are well-positioned to share their preparedness for practice experiences and how their undergraduate education and training have prepared them for transitioning to the practice environment.

Aim: The study aimed to investigate the perceptions and experiences of optometrists who graduated from South African institutions between 2016 and 2020 concerning practice-readiness.

Setting: The study was conducted among graduates working in South Africa's private sector.

Methods: This cross-sectional qualitative study used non-probability purposive sampling. Invitations to participate were emailed to all optometrists who met the inclusion criteria. Qualitative data were collected using online semi-structured focus group interviews. Data were anonymised, transcribed, and thematically analysed using interpretive content analysis.

Results: Fifteen optometrists participated in three focus group sessions between 14 December 2020 and 24 February 2021. Four major themes emerged, namely university training, post-graduation learning curve, independent practice, and being an optometrist. Overall, participants perceived their clinical education and training to be strong; however, certain areas of weakness were highlighted regarding preparedness for practice.

Conclusion: Key areas for strengthening optometry training in South Africa include training optometry students using a flexible approach to the clinical examination routine and increasing clinical exposure opportunities during training. Strengthening courses such as practice management and optical dispensing, both essential for private practice, are also required.

Contribution: The findings of this study contribute to the strengthening of optometry education and training in South Africa. This will, in turn, ensure that optometry graduates are adequately equipped to step into the demands of their expected roles within a private practice context upon graduation.

Keywords: optometry; practice-readiness; graduate perceptions; private practice; transition into practice.

Introduction

In South Africa, an optometrist is considered a primary healthcare professional who performs comprehensive vision and eye health examinations, prescribes and dispenses corrective lenses, detects eye and visual system abnormalities, and if necessary, refers patients to a medical practitioner for medical and surgical interventions.¹ During an ocular health examination, optometrists also look for signs of eye disease, injury, as well as general health abnormalities such as hypertension or diabetes.¹ The optometric scope of practice differs around the world. In most cases, it is set by legislation and governed by regulatory bodies within each country.

In 2015, the World Council of Optometry (2015) developed a Global Competency-Based Model for the Scope of Practice in Optometry to help countries around the world reconcile the international differences in the scope of optometry practice.² Four categories of skills, increasing in the level of competency, were defined. These were: optical technology services, visual function services, ocular diagnostic services, and ocular therapeutic services. Level 1 (optical technology services) includes managing and dispensing ophthalmic lenses, frames and other devices that

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correct visual defects. Level 2 (visual function services), considered an optometrist's primary role worldwide, includes Level 1 services and the investigation, examination, recognition and correction or management of visual defects. Level 3 (ocular diagnostic services) expands on Level 2 to include the investigation and examination of the eye and the adnexa and the associated systemic factors to detect, diagnose and manage the disease, while Level 4 (ocular therapeutic services) includes the use of pharmaceutical agents and other procedures to manage ocular conditions.²

In 2001, the scope of practice for optometrists in South Africa was expanded from Level 2 to Level 3 (ocular diagnostic services) and was subsequently included in undergraduate training programmes. Currently, this is the competency level taught at South African universities that offer the 4-year accredited Bachelor of Optometry degree.³ In 2015, the legislation expanded the scope of practice to allow South African optometrists to become therapeutically qualified (Level 4) once they have completed additional certification and training.⁴ At the moment, the inclusion of therapeutics into undergraduate training is still in the planning phase.

There are four institutions that offer undergraduate optometry training in South Africa, namely the University of KwaZulu-Natal, the University of the Free State, the University of Limpopo, and the University of Johannesburg. The 4-year bachelor's degree covers a wide range of basic sciences, preclinical and clinical modules, with training regulated by the Health Professions Council of South Africa (HPCSA).⁵ The course of study includes a combination of theoretical, classroom-based instruction and clinical experience which covers both generalised and specialised areas of optometry.

Providing student optometrists with exposure to clinical training is vital to competency development because it exposes students to the types of environments, patients and responsibilities they will encounter in professional practice.⁵ During clinical training, students are introduced to optometric instruments and techniques under the guidance of a licensed optometrist⁶ which may occur at university campus clinics or partner training sites external to the university. In South Africa, these external clinical sites are typically community-based, located at public hospitals, community care centres or the Phelophepa healthcare train, among others.⁵

An optometry graduate in South Africa can practise in either academic, public or private sectors.⁵ However, most optometrists in South Africa practise in the private sector, typically in a franchise or independently owned practice.⁷ While these all revolve around the central concept of being able to provide good quality eye care, the roles of an optometrist in each of these contexts may differ somewhat due to the unique job demands in each of these varying environments.⁵

Unlike many other health professions in South Africa, upon graduation and subsequent registration with the Health Professions Council, optometrists are immediately able to

practise independently. Throughout their training, optometry students perform clinical examinations under supervision. Yet, graduates are expected to practise independently once they enter the workplace, with little to no supervision. Therefore, preparing optometry graduates who are ready to practise competently, safely and independently is a key concern in the education, practice and regulatory sector of optometry.⁸

There is generally a lack of understanding regarding South African optometry students' preparedness for practice following graduation, as research is very limited. Rampersad interviewed eight optometry graduates in South Africa to help gain an understanding of their perceptions relating to their undergraduate training.⁵ In general, the graduates from the study were satisfied with the practical and clinical exposure they received as students and found their external clinical experiences very useful. Graduates experienced a 'reality shock' when they first started practising in the real world. They did not feel prepared for the administrative and commercial aspects, and felt pressurised to fulfil patient quotas set by employers. However, having a mentor at work helped the new graduates overcome many challenges. This research aimed to investigate the perceptions and experiences of recent optometry graduates working in South Africa's private sector regarding practice-readiness. This is because recent graduates are in a position to share their perceptions of their preparedness for real-world practice after being exposed to the professional practice environment, and comment on their undergraduate education and training in this regard.

Understanding the strengths and weaknesses of South Africa's training programmes may help shape professional education and training at university level, to ensure that optometry graduates are fit-for-practice and better prepared for the real world practice demands.

Methods

Research design

The study followed a qualitative, descriptive, cross-sectional design intended to better understand the experiences and perceptions of recent optometry graduates in relation to practice-readiness.

Sampling

Non-probability purposive sampling was used to select participants. The sample population was optometrists who had qualified from any of the four accredited optometry training programmes in South Africa between 2016 and 2020. To be included in the study, participants needed to be registered as independent practitioners with the Health Professions Council of South Africa (HPCSA), the national regulator for optometry training and practice in South Africa, and be employed as a clinical optometrist at a private optometry practice for a minimum period of 1 year during their 5-year initial practice period.

Data collection

All registered optometrists who met the inclusion criteria were contacted via email and invited to participate in the research. The study sought to recruit participants from all four universities and administer focus group interviews for each because training at institutions may differ slightly in course structure, resource availability, teaching quality, and campus culture. However, due to the small number of respondents ($n = 15$), only three focus group interviews were conducted, one of which had a mixed institutional representation. Focus groups were used to collect data as this method was deemed most appropriate because it would facilitate discussion around individual and collective experiences relating to practice-readiness. A set of open-ended questions guided the semi-structured discussions.⁹ The areas of interest probed included experiences transitioning from a university student to an independent optometrist, aspects new graduates felt unprepared for, and the support graduates could access during this transition period. Participants were also asked what could be done to improve the preparation of optometry students for the private practice environment and their individual level of professional satisfaction. Interviews were scheduled at a mutually convenient time and conducted using the Zoom online platform. The duration of each focus group discussion ranged between 40 min and 55 min and was recorded with the consent of the participants. The audio recording was transcribed verbatim for qualitative analysis. The focus group interviews were moderated by two authors of this study, which provided an insider's perspective.

Data analysis

Qualitative research using content analysis provides new insight into the lived experiences of participants by making inferences from data within the relevant context.¹⁰ The inductive content analysis process uses coding to create sub-themes, which are grouped into higher-order themes.¹⁰ Figure 1 outlines the process flow.

Through a process beginning with open coding, transcripts were thematically analysed within an interpretive framework. Emerging themes were reviewed and compared to assess whether they were complete and encompassed all the codes developed from the data. As there is not enough existing knowledge on this topic, an inductive approach to the analysis was used.¹⁰

Ethical considerations

The study was ethically reviewed and approved by the University of KwaZulu-Natal Humanities and Social Science

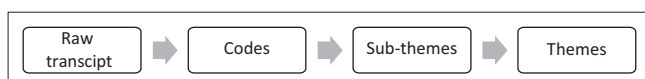


FIGURE 1: Thematic analysis process.

Research Ethics Committee (ethical clearance number: HSSREC/00001635/2020). Written informed consent was obtained via email from the graduates prior to them participating in the focus group interviews. The identities of the participants were not used during data collection or analysis to ensure anonymity.

Results

A total of 15 optometry graduates participated in the study, with three separate focus group interviews conducted between 14 December 2020 and 24 February 2021. Table 1 shows the institutional distribution of the participants.

Four main themes emerged from the data, which are shown in Figure 2.

Study findings and discussion

Theme 1: Factors that influenced training at university

Theme 1 was the predominant theme which highlighted graduate perceptions of the important role of university training in preparing students for the practice context. It included sub-themes of clinical training approaches, advanced technological skills, exposure to the practice environment, creating an enabling learning environment, depth of training, experiential learning, and preparation for private practice as key contributors to practice-readiness.

Subtheme 1.1: Clinical training

Overall, graduates felt that their undergraduate training prepared them for the general clinical practice aspects of optometry. One participant expressed this by saying: 'I feel like we learnt a lot clinically and we were very adequately prepared for that side' (Participant 3, female, university A) with other participants in agreement. However, new graduates were not equipped to complete an eye examination within the time frame required in private practice; and unanimously reported that they were not taught how to adapt their examination routine according to the patient's needs. This concern was expressed as follows:

'There's no formal instruction in terms of how you adapt routine eye tests at campus level, to seeing a real-life patient ... There is no thought given to the fact that it would be impossible to conduct a test for one-and-a-half hours on a patient in the real world, or even forty-five minutes'. (Participant 2, male, university A)

A study by Rampersad showed similar findings, where optometry graduates also expressed concern that they felt

TABLE 1: Distribution of optometry graduates according to their university of graduation.

| Focus group | University | Number of graduates |
|-------------|------------------------------------|---------------------|
| 1 | University of KwaZulu-Natal (UKZN) | 7 |
| 2 | University of the Free State (UFS) | 3 |
| 3 | University of Limpopo (UL) | 1 |
| | University of Johannesburg (UJ) | 4 |

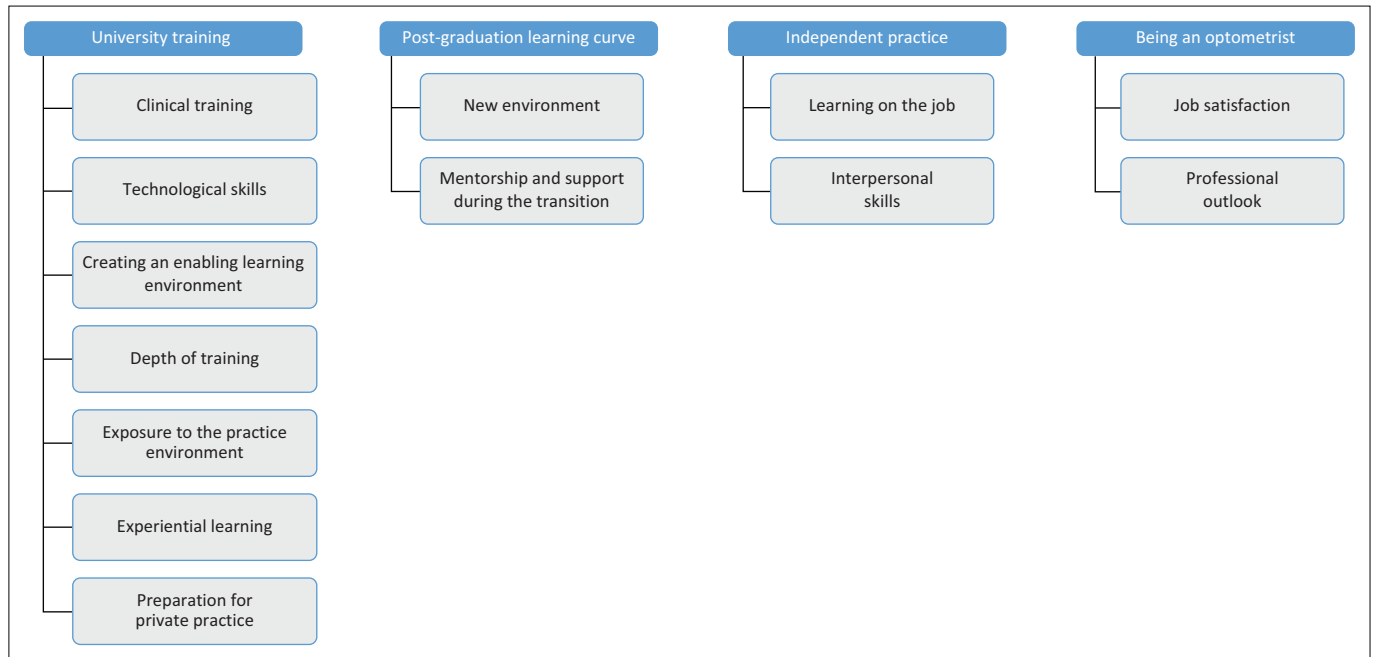


FIGURE 2: Themes and sub-themes.

pressurised as the time allocated for eye examinations in practice was much shorter than at university.⁵ One of the key drivers of profitability in private practice is to increase outputs, and one way of doing this is by maximising the number of eye examinations per day.¹¹ As a result, optometrists are under pressure to perform all the necessary tests within a set time frame, usually between 20 min and 45 min, depending on the practice. During university training, however, students are typically required to perform all primary techniques in a testing routine, as repetitive skills training is an excellent way to improve the accuracy and efficiency of a clinical technique.¹² However, after the initial mastery of basic skills, repetition alone is not enough to lead to further improvements, and the next step is learning how to select and sequence techniques.¹² Certain clinical tests are standard in every eye examination, while other tests are performed according to the patient's specific requirements. It is, therefore, important for optometrists who work under time constraints to direct their examination towards the patient's particular needs. This improves efficiency by avoiding unnecessary tests, which may lead to higher health costs and poorer patient outcomes.¹³

Subtheme 1.2: Advanced technological skills

Optometric practice has advanced significantly over the past 20 years, as sophisticated optical equipment and information technology have become more widely adopted.¹⁴ A growing number of optometry practices now have state-of-the-art equipment to assess visual function or image the eye to detect and monitor eye disease more closely.¹⁴ Of concern was that participants felt that they were not exposed to this advancing technology during their university training. One participant expressed this by saying: 'I didn't feel that we were exposed to the latest and greatest [technology] at university' (Participant 2, male,

university A). If students are not taught how to use the more advanced diagnostic equipment during their training, they will be less likely to be ultimately practice ready on graduation. Some participants also voiced concerns about the availability of essential equipment during university training. According to one participant:

'Where I graduated, I struggled a lot when it comes to the equipment that we're using for our practical, you'll find that maybe a group of 15 or 20 need to rely on that one particular thing and they expect you to excel and do things perfectly. You don't really get time to practise as much as you can'. (Participant 1, female, university C)

Sharing limited equipment during practical classes restricts the time available for students to develop proficiency in using that equipment. Evidence suggests that there is more pressure on universities to increase student intake. Yet, they are not adequately funded for this increasing number of students due to reduced subsidies and budget constraints.¹⁵ Universities also need to repair and maintain equipment more often due to the high number of novice students learning to use it.¹⁶ While it may be difficult to acquire more equipment funding, universities must explore ways to keep up with technological demands to ensure that training remains relevant.

Subtheme 1.3: Creating an enabling learning environment

Educators play a significant role in creating an enabling learning environment. One participant talked about personal encounters with some lecturers:

'Some of the lecturers, if you go to them with a question, sometimes they were actually a little bit nasty about it or they make you feel like you didn't know much, especially in the specialised subjects. You should feel free to go ask and I feel some lecturers didn't give you the opportunity or make you comfortable enough to ask the questions'. (Participant 2, female, university B)

A study by Voss and Gruber found that students want educators who are knowledgeable, enthusiastic, approachable and friendly.¹⁷ The finding that some participants found lecturers unapproachable or unprofessional is concerning, as this was shown to affect students' interest in the subject matter. A participant expressed this by saying:

'Some of the lecturers put me off a subject just because of the unprofessionalism or they made you feel like you a real idiot'. (Participant 1, female, university B)

Furthermore, students value learning experiences when they feel that their opinions and points of view are respected by their educators.¹⁸ Module evaluations are one way to improve teaching and learning processes by evaluating the effectiveness of educators.

Participants also had mixed views on the practical experience and knowledge of some lecturers and clinical supervisors with limited exposure to the real-world practice environment. One participant said 'Our lecturers have more experience since they worked in the private sector or maybe they have their own practice' (Participant 4, male, university A). In contrast, another participant expressed: 'The ones that didn't have a lot of practical experience were definitely lecturers, I honestly thought had no idea what they were talking about' (Participant 2, female, university B). A participant expressed this concern by stating:

'I feel [*the clinical supervisors*] have become out of touch with where practice is going and so they not actually in tune with what's actually happening in the optometric world, they're so theoretical and so clinical in a sense that you don't have time to do all those million and one tests'. (Participant 1, female, university B)

This may indicate that educators at different universities may have varying levels of experience. Keeping up with the optometric industry is also important. Based on this result, educators should stay up to date with the latest research literature and maintain regular practical experience in the field.¹⁹

Subtheme 1.4: Depth of training

Depth of training refers to the extent to which specific topics are focused on.²⁰ Graduates felt that the material covered in the course was comprehensive. However, the amount of information utilised in a real-world setting was far less. A participant said:

'The breadth of the material that you cover is vast and comprehensive but in terms of the amount of it that you actually utilize on a day to day at practice level is very different'. (Participant 2, male, university A)

Several participants felt that dispensing, specialised topics (i.e., contact lenses, low vision, binocular vision, and paediatrics) and practice management needed to be addressed in greater detail. Regarding speciality topics, one participant noted:

'Besides contact lenses, [*other speciality topics*] were touched upon briefly. From what I've seen in private practice regarding low vision or paediatric practice, it is a million miles apart from what we saw and what we were taught'. (Participant 2, female, university B)

Another participant shared his view on the practice management module at his university:

'We treated the Practice Management module ... very lightly, so it could be that the information was there ... I did go through all the notes and it wasn't as comprehensive as I thought it should be; so if it was perhaps revised or delivered in a slightly different manner, or just stress the importance of it'. (Participant 2, male, university A)

Optometry graduates interviewed by Rampersad expressed the same concerns about dispensing, specialised topics and practice management in a study conducted more than 10 years ago.⁵ This indicates that these gaps have not been fully addressed. In part, universities can address this issue by including feedback from employers and experienced optometrists in the field in designing and delivering these courses to ensure that exit-level training competencies are appropriate for industry.²¹

Subtheme 1.5: Exposure to the practice environment

Exposure to the optometry practice environment can be gained through internships, service learning, and shadowing,²² important aspects of experiential learning. It provides an opportunity for students to prepare for the real working world and learn clinical skills, clinical reasoning, communication, and interpersonal skills from experienced optometrists or ophthalmologists.¹⁸ Despite recognising the value of shadowing ophthalmologists and optometrists being included in their curriculum, participants in this study felt that their exposure to the practice environment was limited. A participant shared her shadowing experience:

'Final year ophthalmology shadowing was really bare minimum, because it's in a government setting. They do the consultation; you don't see an end result. Our [*surgery*] theatre was closed or it was cancelled. The experience could have been a lot more valuable'. (Participant 2, female, university B)

Decentralised clinical training (DCT), administered at one of the institutions as a service learning model, was noted as necessary in developing clinical competency, fostering peer engagement and sharing knowledge among students. One participant expressed these sentiments on her service learning experience:

'If one thing that has to stay a part of the university programme, it has to be the DCT, because that was the most amazing experience for me'. (Participant 3, female, university A)

Such training models provide context-appropriate training for graduates practising in the public sector.²³ However, opportunities for work-integrated learning, focusing on the private practice environment, appear to be very limited in all institutions represented in the study.

Subtheme 1.6: Experiential learning

Acquiring part-time work at an optometry or ophthalmology practice is an excellent way of gaining field-based experiential learning.¹⁸ An important aspect of clinical experiential learning is receiving guidance and feedback from educators and professionals, as well as students' reflections on their experience.¹⁸ However, part-time work is not arranged by universities but is organised by students in their personal capacity. Graduates who had the opportunity to work with an ophthalmologist during their student training found that the experience helped them manage patients with pathology more effectively. In contrast, graduates who worked at a private optometry practice noted a big difference between public and private sector optometry. As such, graduates felt that including a private practice rotation in the undergraduate curriculum would help students gain a better insight into the private sector. One participant suggested:

'The university could enter into a partnership with maybe specific private [*optometrists*] where they do a rotation through the private setting ... so that you could get a better understanding with what actually goes on'. (Participant 7, female, university A)

As the private sector is the largest employer of optometry graduates,²³ gaining experience in this sector is vital for practice-readiness. Integrating work experience into university education, whether through part-time work or external clinics, provides graduates with the skills, knowledge and capabilities that will enhance their employment prospects upon graduation.²⁴ Employers prefer graduates with relevant work experience, as certain skills are more effectively developed in a real-world environment.²⁴

Subtheme 1.7: Preparation for private practice

In this study, recent optometry graduates felt ill-prepared for certain aspects of the private practice environment because of a strong emphasis on clinical skills during training but a lack of emphasis on other important elements such as dispensing, practice management, and soft skills. One participant expressed the concern:

'I don't think the clinics we were exposed to on campus fully prepared us for seeing patients in the real world, be that private or public patients. The focus on campus is overwhelmingly on the clinical aspect, you are never told ... how important the soft skills are'. (Participant 2, male, university A)

While another participant said: 'We are trained very clinically, I was unprepared in business, administrative and staff management' (Participant 1, female, university B). It should be noted that while some of these skills can be included in the training programme, the practical application of these skills can only be learned in the real world. While all four universities currently offer a course in practice management, the findings of this research suggest that these courses do not provide the level of detail required, or that these courses are not assigned the degree of importance they should have.

Theme 2: The steep post-graduation learning curve

This theme highlights the learning curve graduates experienced once they entered the new environment of the working world. It highlights mentorship and support as important factors during this transition.

Subtheme 2.1: New environment

The transition from university to the new workplace environment is challenging for graduates.⁵ According to Tryssenaar and Perkins, healthcare graduates undergo four stages during the transition, namely 'transition', 'euphoria and angst', 'reality of practice', and 'adaptation'.²⁵ The aforementioned stages align with the findings of this study regarding the early stages of professional practice for new graduate optometrists in South Africa. In this study, participants initially found the new environment overwhelming, overcoming knowledge and skill shortfalls before the realities of practice set in. One participant noted:

'Each and every company or sector does things in a different way, so it was a little bit overwhelming, because now I had to grasp everything in a short period of time'. (Participant 5, male, university A)

The findings from this study also suggested that once graduates gained sufficient experience, they adapted to their new environment more easily and began to enjoy their practice experience. One participant described their experience: 'Once I got the exposure to different practices, different ways of doing things ... it broadens your perspective, it makes things a lot easier and an overall better experience' (Participant 7, female, university A). Individual approaches to new challenges can affect responses to the situation. A participant in this study explained her approach to new challenges:

'The admin [*and*] management side of it was always something that I had to do from day one. It was a bit overwhelming at first'. I'm someone that really likes pressure, so the more pressure it is, the better I do, so that's also why it wasn't really a bad experience for me'. (Participant 2, female, university B)

Recent graduates' expectations about the optometry profession changed once they entered the working environment. University teaching has a patient-centred approach focusing on delivering the best clinical care according to the patient's needs. In contrast, private practices have to balance profit-making and patient care. One participant describes the shift in expectations he experienced:

'What I expected from being an optometrist as a student and when I graduated was quite different so there was a big gap for me so in university, you concentrate on clinical things so pathology and you have all these special clinics and it's all very interesting but then when you graduate and you go to practice it's more about making money and to sell glasses so that was definitely something I didn't expect'. (Participant 4, female, university D)

Participants felt largely unprepared for the reality of this consumer-focused environment, finding it challenging to navigate the business demands of private practice optometry.

This may be because profit-making requires standardisation, efficiency, technological proficiency, and hierarchical decision-making,²⁶ especially evident in the corporate franchise practices, common within the South African landscape. As a result, optometrists working in these environments are often required to maximise patient loads, work with sub-optimal technology, and have less control of the decision-making process.²⁶ In addition, a higher focus on profits over patient care can lead to optometrists finding less meaning in their work.²⁶ This aligns with the frustration expressed by participants in this study who had worked in a retail-focused environment. However, universities cannot fully prepare graduates for every aspect of the working world. Graduates also vary in their capacity to absorb information during their studies.²⁷ Therefore, mentorship and support during a graduate's transition phase help address any remaining gaps in practice-readiness.

Subtheme 2.2: Mentorship and support during the transition

In South Africa, some corporate optometry groups offer graduate development programmes to new optometry graduates, including professional events, courses and guided experiences to help prepare recent graduates for practice.²⁸ Interesting to note is that participants in this study who were part of a graduate programme found their transition into practice easier because they had a safe, structured space to learn and grow. One participant described her experience during the graduate programme as follows:

'The [graduate] programme was a huge help, just because we were guided into private practice, some people may have adapted a lot easier more than others ... but I felt that helped me ease into the working space'. (Participant 2, female, university B)

Graduates who received mentorship from their employers or peers also reported feeling more comfortable and in a safer environment than being left alone. Mentorship and support, therefore, have a positive effect on a graduate's ability to cope and adapt to a new environment.⁵

Theme 3: Soft skills needed for independent practice

Independent practice involves the process of learning on the job and developing interpersonal skills.

Subtheme 3.1: Learning on the job

Graduates in this study reported that soft skills presented the greatest learning curve. One participant expressed this by saying:

'From the ethical side of things I felt it was a massive learning curve, I would learn case by case and I would come across quite a few conflicts or difficult personalities, then again I don't know how much you can actually be prepared for that ... I think you just have to learn from experience. In terms of having that command and team work, that has been a really good learning curve because you have the best of both worlds, you're testing from an optometry point of view and have a role in everything: practice manager, optometrists, front liner, receptionist'. (Participant 1, female, university B)

An optometrist in South Africa is often the sole practitioner within a private practice and is required to take on multiple job roles and responsibilities. One participant raised another important point:

'A lot of the graduating [optometrists] are put into situations where they are the only [optometrist] in the practice and while they may not be the manager but they certainly have more responsibility than usual at that age'. (Participant 2, male, university A)

Many optometry graduates enter the workforce in their early-to-mid-20s, with little prior work experience. Thus, the soft skills acquired at that age may not meet the required level for the positions of responsibility new optometry graduates take on in private practices.

According to Berings and Doornbos, on-the-job learning refers to 'implicit or explicit mental and/or overt activities and processes, embedded in working and work-related performance, leading to relatively permanent changes in knowledge, attitudes or skills'.²⁹ South Africa is culturally diverse and has 11 official languages, which creates a challenge for healthcare professionals.^{30,31} One graduate in this study described her experiences learning how to communicate: 'We were thrown into it ... where we had to just learn to communicate and you had to find ways if there was a language barrier or if they were deaf' (Participant 1, female, university B). The graduates in this study recognised that soft skills are an important aspect of being ready for practice and felt that their soft skills could be better developed at university. One participant expressed her concern: 'In terms of soft skills, I think there's a lot of work that can be done there to just make students understand how much of a people's profession this is' (Participant 2, male, university A). Another participant suggested: 'Being able to have tips on how to manage certain personalities and certain conflicts, I think that could potentially be valuable' (Participant 1, female, university B).

Subtheme 3.2: Interpersonal skills

Interpersonal skills, or people skills, are soft skills defined as interactions involving goal-oriented behaviours that result in a desired outcome.³² Interpersonal skills include communication, teamwork, cultural competency, and collaboration.³³ Optometrists need to be able to communicate with a wide range of people in various contexts, including other health professionals, colleagues, patients and their families.³⁴ The language used in each situation is also unique to the individual and the context.³⁴ Graduates in this study acknowledged the need to learn communication skills through experience, because communicating effectively with patients has numerous benefits, such as improved information exchange, greater involvement in decision-making, and better engagement in preventive care.³⁵ Experiential learning, in the form of external clinics and service learning, is also an excellent opportunity for interpersonal skills development.³⁶ Graduates can develop their interpersonal skills through mentorships, formal in-house training, and on-the-job training.³⁶

Theme 4: Becoming an optometrist

This theme highlights job satisfaction and the professional outlook of optometry graduates.

Subtheme 4.1: Job satisfaction

Work satisfaction refers to a person's motivation or feeling of satisfaction regarding his or her job. One participant shared his experience:

'I also started to enjoy optometry because I'm now seeing it more than just testing patients. It's about having a relationship with them. It's about meeting their needs as much as you possibly can because you will see that some people, when you improve their vision, they become so happy'. (Participant 6, male, university A)

Therefore, participants stressed that the people-centredness of optometry practice should have greater emphasis in training programmes.

The general attitude to the optometry profession among graduates in this study was positive. In general, the graduates in this study appeared to be satisfied with their career choice. Job satisfaction is also closely linked to the retention of healthcare professionals.³⁷ While it was noted that private optometry practice has its challenges, graduates in this study found satisfaction in building relationships and meeting patients' needs. While the challenges encountered during the transition period may have led to reduced confidence initially, the graduates adapted and regained their confidence in meeting the demands of practice over time. One participant shared:

'Out of campus you [are] very confident. You get into practice; you feel a bit overwhelmed. You definitely get a knock to your confidence...but as you in it more, you get a bit more confident'. (Participant 3, female, university A)

This finding is similar to the findings by Sturman et al., who described an initial loss of self-confidence among junior doctors during the intern transition when faced with the responsibility and the uncertainty of real-world clinical practice. Still, they adjusted quickly to the new demands of the job.³⁸

Subtheme 4.2: Professional outlook

While not directly linked to practice-readiness but related to overall job satisfaction, graduates in this study commented that optometry offers a wide range of career paths. Most optometrists enter the private sector as there are more employment opportunities and better remuneration. A few graduates reported that the private sector could be monotonous and repetitive. However, this can be overcome by creating challenges or following their passion in the workplace. One participant shared her viewpoint:

'I mean we all know it's a very repetitive work, and I think it all depends on your personality. If you have something that you have a passion for, say for kids or for [binocular vision] it's important not to let it go just because you're in a private practice otherwise you will lose your ambition'. (Participant 5, female, university D)

Conclusion

This study described some challenges and realities optometry graduates in South Africa face during their transition to independent professional practice. It also highlighted the positive impact of mentorship in supporting practice-readiness. The results of this study suggest that increased exposure to a wider variety of clinical settings during training, specifically to the private practice context, would support improved practice-readiness. While optometry training courses in South Africa were generally perceived as comprehensive, common gaps across universities were explicitly noted in practice management training, specialised topics and optical dispensing skills. These results suggest weaknesses in level 1 skills (optical technology services), as well as certain level 2 (visual function services) and level 3 (ocular diagnostic services) skills when considering the Global Competency-Based Model for Scope of Practice in Optometry developed by the World Council of Optometry. Field-based experiential learning in private practices offers advantages such as exposure to real-life optical dispensing and troubleshooting, managing patients in a customer-centric, profit-driven market, and first-hand experience managing an optometry practice. Despite a steep learning curve following graduation, and an overwhelming transition into practice, most recent optometry graduates in South Africa appear to find satisfaction in the people-centred nature of their profession. However, this is also an area which graduates felt required greater emphasis in the training programme regarding soft skills development. Therefore, universities must reflect on such stakeholder feedback to better understand the factors affecting students' transition into the workforce and ensure graduates are better equipped with the skills that employers require by addressing gaps in university-level training. Accordingly, improvements can be made to strengthen these training areas to make optometry graduates fit-for-purpose and improve their practice-readiness.

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Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

Authors' contributions

All authors were involved in the conceptualisation and methodology of the article. T.P. completed the literature search, investigation and drafted the research article. D.V.

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Data availability

The data that support the findings of this study are available from the corresponding author, T.P., upon reasonable request.

Disclaimer

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