

Original Research

A review of the career choices of Sefako Makgatho Health Sciences University pharmacy graduates from 2015 to 2019 – A pilot study.

Thokozile Mosiane , Lindi Mabope , Nontobeko P Mncwangi 

Received (first version): 08-May-2023

Accepted: 05-Jun-2023

Published online: 09-Nov-2023

Abstract

Introduction: The pharmacy profession is dynamic; continually expanding in new directions, offering interdisciplinary professional education and work-based learning opportunities. Many factors influence individual choices to study pharmacy and progression within the various sectors of pharmacy. **Objectives:** To review the career paths of Sefako Makgatho Health Sciences University pharmacy graduates from the year 2015 to 2019, internship and community service placements and to explore current employment status. **Methods:** A descriptive and quantitative study design was followed using an online questionnaire that was originally developed using Google Forms®. The study sample included pharmacy graduates from 2015 to 2019. Researchers captured data from the questionnaires on Microsoft Office Excel™ (2016) spreadsheets. **Key findings:** The majority (78.1%) of the graduates are employed full time with only 5% unemployed. Most of the graduates felt well prepared for hospital pharmacy (64.2%) by the BPharm programme offered at SMU with only a few graduates (5.3%) who felt that they were prepared for industrial pharmacy. It was also noted that 70.3% of the graduates are still at the operational level and only 4.4% are in executive positions. **Recommendations and Conclusions:** The response rate can be improved by allowing more time for graduates to respond. Graduates are advised to update their contact details on the SAPC register to facilitate communication with them. The pilot study demonstrated that the SMU School of Pharmacy had several graduates that are employed in the public sector as they felt best prepared for hospital pharmacy practice compared to any other sector.

INTRODUCTION

Pharmacists represent the third largest group of healthcare workers in the world, with an estimated workforce of 230 000 – 250 000.¹ Given the ensuing National Health Insurance, pharmacists represent an untapped and highly qualified, resource that can be utilized more efficiently and appropriately to the benefit of the health-care system and the public.² Through proper legislation, public education, and changes in future pharmacy curricula, the pharmacy may represent a relatively inexpensive and readily accessible institution to put in the range of places from which a person may seek medical help.² In 2011, more than 13 000 pharmacists were registered in South Africa alone.³ Currently this number stands at 18 008, leaving 239 pharmacists unaccounted for.⁴ In the ever-changing world, the 4th industrial revolution, workforce planning is essential for sustaining a healthy profession, and pharmacists are not exempt. Recent workforce planning mechanisms in

the United Kingdom may guide renewed efforts within the profession in the United States.⁵ Similar efforts are necessary for the South African scenario. Using several indicators, Covey *et al.*,⁵ concluded that there would exist a shortfall of 157 000 pharmacists by the year 2020 in the UK and the US alone. This increased need for pharmacists would arise from the expected increase in prescriptions for a growing population over the age of 65 and from the pharmacist's role expanding into several areas, such as drug use safety and policy, geriatrics, and long-term care facilities.

The purpose of this study was to investigate the career choices and factors that influenced the career choices made by Sefako Makgatho Health Sciences University (SMU) graduates, the progress they have made in their respective careers, and their satisfaction (or lack thereof) with their present work. It also provided an opportunity to get feedback from the graduates on areas for development. It likewise gave a chance to get criticism from the alumni on territories for development.

Thokozile MOSIANE*. Pharmacy Practice Department. School of Pharmacy, Sefako Makgatho Health Sciences University P.O Box 218, Medunsa, 0204, Pretoria, South Africa. thokozile.okaecwe-mosiane@smu.ac.za

Lindi MABOPE. School of Pharmacy, Sefako Makgatho Health Sciences University P.O Box 218, Medunsa, 0204, Pretoria, South Africa.

Nontobeko P MNCWANGI. Pharmacy Practice Department. School of Pharmacy, Sefako Makgatho Health Sciences University P.O Box 218, Medunsa, 0204, Pretoria, South Africa.

METHODS

Study design

A descriptive and quantitative study design was followed using an online questionnaire which was developed using "Google Forms" adopted and adapted from Alhomound *et al.*⁶ The adapted self-administered questionnaire consisted of both closed – and open-ended questions (Appendix A). A link to the questionnaire was then e-mailed to participants to complete at their convenience.



Study population and sample selection

The study population ($n = 304$) was SMU Pharmacy graduates from the years 2015 to 2019. Opportunity sampling was used as a method of sampling; thus graduates from the target population that was available and willing to take part participated. A period of five years was used to ensure a feasible number of participants in the study. Therefore, researchers performed the study on potential participants who met the inclusion criteria and those that responded to the questionnaire sent via e-mail.

Data collection

To obtain graduates' contact information, the university's database was utilized after obtaining permission from the Deputy Registrar. An online questionnaire, through Google Forms, was used to collect data from the participants and the feedback was accessed electronically. Social media (Facebook® and WhatsApp®) and word of mouth to some of the graduates were employed to sensitize participants to the study and create a snowball effect. The questionnaire was administered electronically and researchers followed up telephonically by sending out the links to the questionnaire via text messages and Instant Messenger platforms (WhatsApp®).

Data analysis

Data from the questionnaires was captured on Microsoft Office Excel™ (2016) and crosschecked to ensure the correctness of the data, thereafter, descriptive statistics were applied to the datasets. All statistical analyses were performed using the Statistical Package for the Social Sciences® (SPSS), version 25. Demographic characteristics were summarized quantitatively. Continuous variables (e.g. Age) were summarised using mean, standard deviation, median, interquartile range, and minimum and maximum values. Categorical variables (e.g.: Factors influencing pharmacy sector selection) were summarised by frequency counts and percentage calculations. Responses provided in the free script (i.e. Reasons) were typed in Microsoft Office Excel™ (2016) after which responses were sorted and tabulated according to the labelled categories.

Ethical considerations

The study protocol was granted ethical clearance, SMUREC Ethics Reference number: SMUREC/P/71/2020:UG (Appendix B). Researchers obtained informed consent – by including the statement “By completing this questionnaire, I consent to participate in the research and agree that I fully understand my rights” at the beginning of the questionnaire. Confidentiality was maintained by protecting the identity of the participants and anonymity was maintained by not requesting the participant's personal or identifying information in the questionnaire. To ensure honesty and integrity, the data collected was used for the study carried out by the researchers and not anyone else, and no results were obtained using fraud.

RESULTS

A total of 96 out of 304 graduates responded to the questionnaire, representing a 31.58% response rate from SMU

graduates practising in different sectors of pharmacy. A response rate of 31.58% was deemed acceptable for a pilot study as it gave an indication of the validity of the questionnaire and the robustness of the data obtained using the data collection tool. Research findings will be presented as follows:

Demographic profiles and educational background

Employment and levels of seniority in which SMU pharmacy graduates are in their work environments;

Sector selection for internship and community service, and career progression;

Factors influencing career choices of SMU pharmacy graduates career choice.

Demographic profiles and educational background

The majority (90.6%) of respondents were black (African), female graduates made up the majority (72.9%) of respondents, and other races included white, Indian, and colored. Most participants (89.5%) possessed a BPharm Degree only at the time of the study and approximately 10% had a Master's Degree. A small portion of respondents (12%) had 3-4 years of work-experience post registration with the South African Pharmacy Council (SAPC); this was in line with the study population and period, years 2015 to 2019. A throughput rate is an essential indicator for the performance of any program; SMU School of Pharmacy has a record of exceptional throughput rates. As such, 84.4% of respondents reported that they finished the course in the stipulated time (4 years) with only a small fraction (4.1%) taking 1.5 times to complete the program. Approximately half of the respondents had a Bachelor of Science Degree (47.37%) in various streams, followed by those with a Bachelor of clinical medical practice degree (15.80%). Only three graduates of the participants had a bachelor of nursing degree, a Diploma in public health, and an electrical engineering degree. Two (2) candidates had Master's Degrees in Pharmacy (10.53%) and two candidates had Biomedical Technology Degrees (10.53%). Figure 1 provides a summary of other qualifications other than a BPharm Degree held by SMU graduates, from 2015 to 2019.

Employment and levels of seniority that SMU pharmacy graduates are at in their work environments

The majority of participants (64.2%) felt they were best prepared for Hospital Pharmacy; 18.9 % of the graduates felt they were best equipped for community pharmacy a 10.5% expressed as better trained for the academia sector. Only a few graduates (5.3%) felt they were best prepared for industrial pharmacy with the least 1% who felt that the BPharm training did not prepare them for any of the sectors. The majority, 78.1%, of SMU graduates from 2015 to 2019 are employed full-time as public servants in the National Department of Health (NDoH). Only 5% are unemployed, it was not explored further whether this figure included those who do contract work only in the form of locums. About 70.3% of graduates are still in operational management, 25.3% in middle management and only 4.4% of graduates hold executive positions; this indicates that many of the graduates are still working their way up to executive positions.



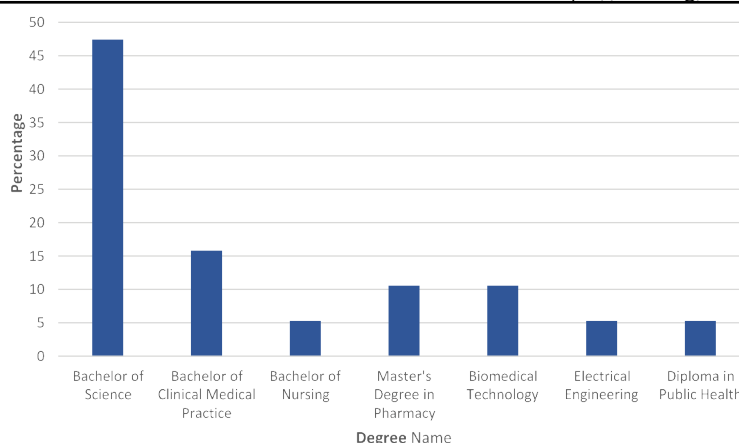


Figure 1. Summary of other qualifications other than BPharm Degree held by SMU graduates, 2015 to 2019, $n = 96$

Sector selection for internship and community service and career progression

Internship

Usually, graduates begin with their internship program in January and complete it around December which is a period of 12 months. Based on the results that were obtained during the study period; it was found that some SMU pharmacy graduates could not do their internship earlier at the beginning of the year thus, they were obliged to complete their internship program the following year as they have to spend at least 12-month doing pharmacy internship. According to the results obtained, there were only a few numbers of SMU pharmacy graduates who are unable to complete their internship program over one 1 year period; however, they were required to overlap to the following year to finish their internship program. Despite SMU using its teaching methodology, which is problem-based learning (PBL), results show some greater performance by SMU Pharmacy graduates in securing employment, as they can compete with other pharmacy graduates from different higher learning institutions.

The majority (30.9%) of SMU pharmacy graduates were employed by the NDoH, which is the public sector. Other employers for internships included Netcare medical group, Clicks, and Dis-Chem Pharmacy, with a greater number of SMU pharmacy graduates. The World Health Organization¹ estimates a global healthcare workforce shortage of 7.2 million, which is predicted to grow to 12.9 million by 2035⁷. In South Africa, more than half (63%) practice in the private sector, serving a minority of 10% of the population. The remaining 29% are left to serve 81% of the population in the public sector.⁸

The implementation of occupation-specific dispensation in 2009 has seen a major increase in the percentage of registered pharmacists employed in the public sector from 12% in 2004 to 29% in 2010 due to increased remuneration.⁹ In a global market, the movement of pharmacists is inevitable, South Africa is both a donor and receiver country when it comes to pharmacy personnel and academics. In 2010 alone, an average of 127 registered persons requested a certificate of good

standing for purposes of registering in another country,³ it is extrapolated that this number has increased over the years due to political and economic instability which the country has been experiencing since then. Most (57.14%) SMU pharmacy graduates prefer to do their internship program in Gauteng Province. Limpopo and Mpumalanga also have a greater number of pharmacist interns as compared to other provinces. Results show that only two provinces which are Eastern Cape and Western Cape had no SMU pharmacy graduates who completed their internship program in those two provinces. Figure 2 depicts the sector of employment for internships for Pharmacy graduates, from 2015 to 2019.

Community Service

Community service is a mandatory 12-month period during which a pharmacist must be in the employ of the government before registration with the SAPC. Gauteng had 11 graduates, Eastern Cape, Free State, and Northern Cape had one graduate each, KwaZulu Natal had five graduates, Mpumalanga had six, North West had eight, Limpopo had seven and Western Cape had no graduate doing community services there. Figure 3 provides a summary of provinces where SMU Pharmacy graduates performed community service.

Career progression and experience in various sectors of pharmacy

Sefako Makgatho Health Sciences University Pharmacy graduate experience in various sectors of pharmacy was also assessed; community pharmacy, hospital pharmacy, industry, and academia were considered as major sectors and are discussed below.

a. Community Pharmacy

Approximately 74.15% of respondents had experience in community pharmacy. Community also known as retail pharmacy is the most common type of pharmacy that allows the public access to their medications and advice on their health. Considering the overall percentage being greater than 50%, it is evident that most SMU pharmacy graduates are knowledgeable in terms of work areas and expertise in community pharmacy.



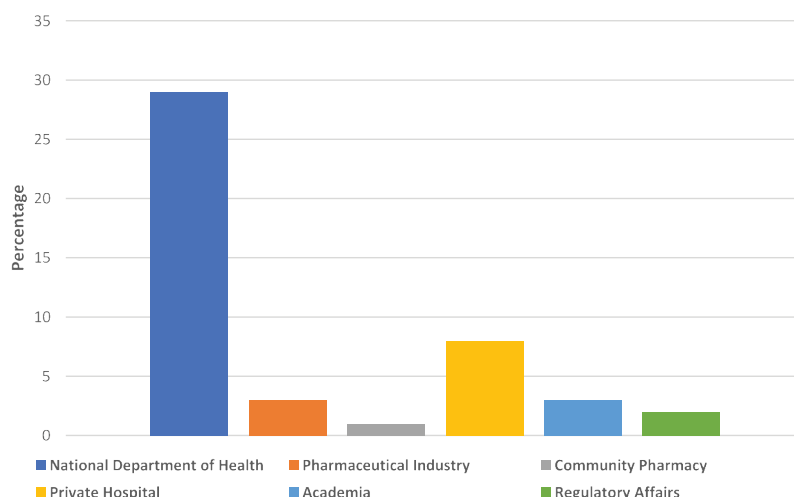


Figure 2. Sector of employment during internship of Pharmacy graduates, from 2015 to 2019, n = 96

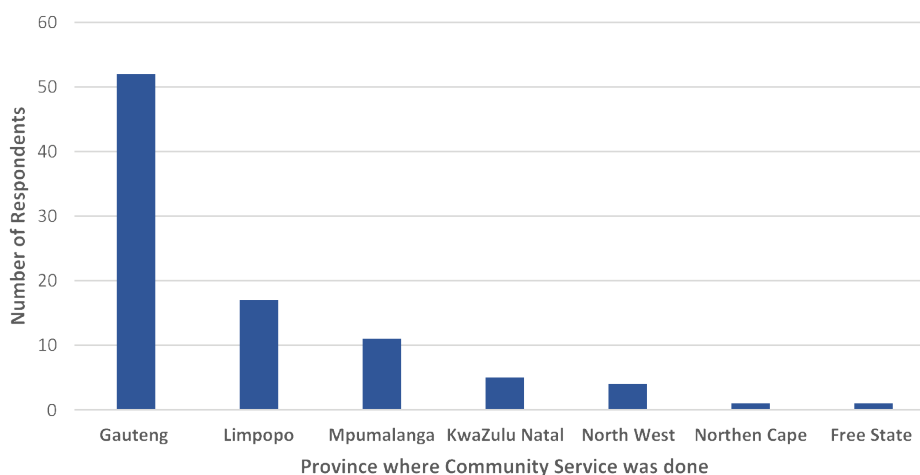


Figure 3. Province where SMU graduates 2015 to 2019 performed community service, n = 96

b. Hospital Pharmacy

An overall percentage of 90.1% of SMU graduates with working experience at hospitals and pharmacies was obtained and the researcher found that 41.8% of graduates had less than a year of experience and 34.1% had at least 1 to 2 years of work experience. In these two ranges of years, these were greater percentages of time spent were obtained; furthermore, 9.9% of SMU pharmacy graduates had no work experience at either public or private hospitals.

c. Industrial Pharmacy

A total of 64.4% of respondents indicated that they did not have any experience industrial pharmacy sector, this attests to the earlier finding that SMU pharmacy graduates prefer to work at community or hospital pharmacies. Only 28.9% of graduates have less than a year of work experience in industrial pharmacy and lastly, none of the SMU pharmacy graduates who graduated in the years 2015 to 2019 has at least ≥ 3 years of work experience in this sector.

d. Academia

A high number, 71.1%, of SMU pharmacy graduates did not show interest in academia. Only a few with an overall percentage of 28.9% had an interest in expanding their knowledge of pharmacy rather than just working in any of the sectors that involve interaction with patients and other healthcare professionals, and also manufacturing of medicines.

Figure 4 provides a summary of experience as indicated by SMU Pharmacy graduates, where the majority of the respondents had the most experience in hospital and community pharmacy and indicated the least experience in industrial pharmacy and academia.

Factors influencing career choices of SMU pharmacy graduates career choice

As shown in Figure 5, the majority (73.9%) of the graduate's career choices were largely influenced by; personal interest, followed by half who were influenced by experience gained



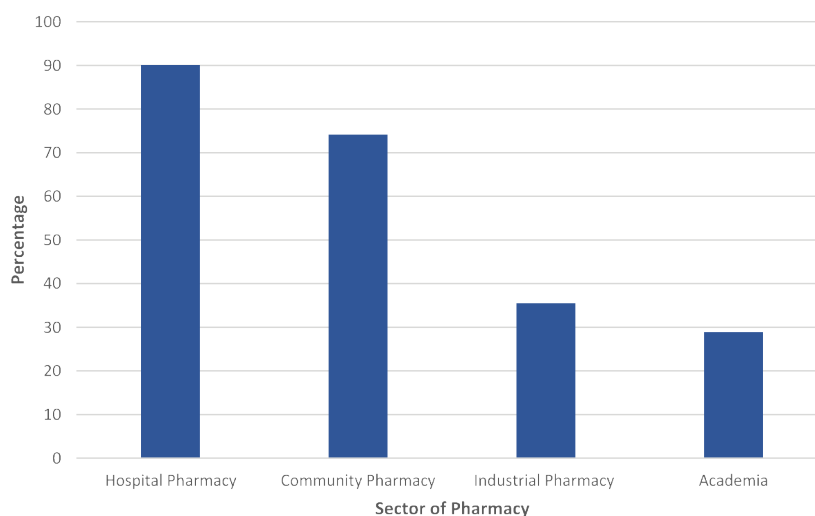


Figure 4. A: Experience of SMU Pharmacy graduates in hospital, community and industrial pharmacy and academia, *n* = 96

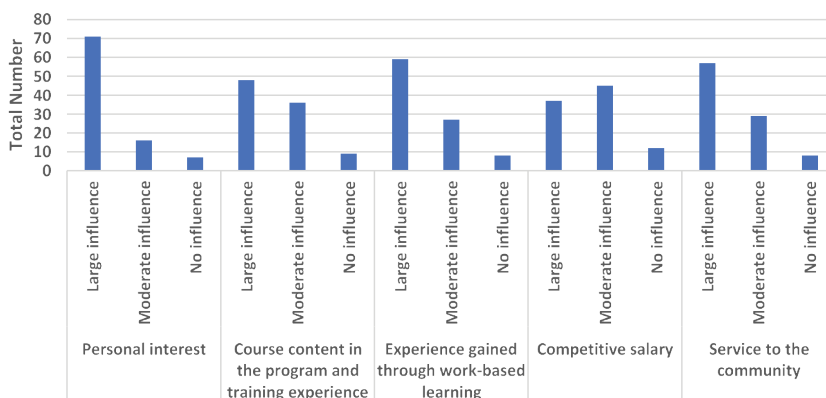


Figure 5. Factors influencing career choices of SMU pharmacy graduates' career choice, *n* = 96

through worked based learning and services to the community. A small number (38.5%) of graduates reported that remuneration and opportunities for learning and development did not influence their careers. The majority of the graduates also indicated that reputation and competitive salary had a moderate influence on their career choice.

DISCUSSION

Pharmacists form an interface between the developer and producer of pharmaceuticals on the one hand and the consumer of their products on the other; they are society's experts on medicines.¹⁰ Pharmacists are involved in the initial development of new chemical entities, their formulation into medicines, testing, marketing and distribution, supply to patients, and ultimately monitoring patients taking these medicines.¹⁰ The South African Pharmacy Council is a quality assurance professional authority tasked by the Department of Higher Education and Training, to ensure that pharmacy training programs offered in the country are of an acceptable standard and are comparable worldwide. Higher education is meant to equip students for the work environment by giving

them the necessary knowledge and skills and also by shaping their attitudes for deployment.

The role of the Schools of Pharmacy and Departments is pivotal in ensuring that the healthcare needs of society are adequately met.^{2,11} Of the 96 pharmacy graduates who completed the questionnaire, the majority have a Bachelor's Degree and only a few graduates have Bachelor's and Master's Degrees. Most graduates have 2-3 years of experience post-registration with the SAPC because graduates who completed the questionnaire graduated in 2015 and 2019. The majority of the graduates completed the BPharm training within the prescribed time of four years. The majority of Pharmacy graduates reported that they were best prepared for Hospital Pharmacy based on its clinical expertise, with Dr George Mukhari Academic Hospital also aiding in the moulding of clinical-oriented pharmacist graduates. Some of the graduates also expressed that they were equipped for community pharmacy because it is not very different from hospital pharmacy, a small number of respondents reported being prepared for academia, with a Master's Degree being offered in different fields in the School, it was expected. A very small percentage were prepared for



the industrial pharmacy sector, as many of the graduates are not practising in the industrial pharmacy sector. Most of the graduates did not have any degree other than the BPharm Degree, and those who had another degree were mostly those who studied other courses before BPharm, with the common degree trend being Bachelor of Science in different streams. Only a few graduates had a Master's degree in Pharmacy.

According to the current employment status and level of seniority of graduates' current position results, it indicates that the majority of SMU graduates are employed after the completion of their Bachelor's Degree; this shows good performance of graduates. The results also indicate that many of the graduates are still working their way up to executive positions. Regarding the year in which SMU pharmacy graduates completed their internship, the name of the employer, the sector, public vs private, and lastly, the province in which they completed their internship. Based on the results obtained indicate that SMU pharmacy graduates get an opportunity to further their internship program immediately after completion of the BPharm Degree. The results show no fluctuations but an escalation in the percentages from 2015 to 2019, which could be a sign of good performance by the graduates.

The participants were given ranges of years with less than a year being the minimum and greater than 3 years being the maximum years spent in that sector. According to the results, higher percentages were obtained on less than a year of experience in community and hospital pharmacy, indicating a greater interest in these two sectors. Under industrial and academia, higher percentages were obtained on the "Not applicable" part, indicating a lack of interest by the graduates.

LIMITATIONS

Factors that influence career choices were provided for respondents to choose from, however, there could have been other factors that were not listed and were thus missed. A response rate of 31.5% is seemingly low, however, this was only a pilot and a full study is due to be undertaken in 2021.

CONCLUSION

The current employment status results show that the majority of SMU graduates are full-time employed and a very low percentage of graduates are unemployed. The majority of graduates are employed in the public sector, in hospital pharmacies, with the least employed in the pharmaceutical industry. Most of the graduates hold operational positions,

with a few in executive positions. Most of the graduates felt well prepared for hospital and community pharmacy.

RECOMMENDATIONS

It is recommended that the School of Pharmacy sensitize pharmacy students to other sectors of pharmacy. The school should keep an updated list of their graduates' details by having a functional Alumni Program. This will not only assist in research, but it will also create a sense of belonging and identity for SMU graduates. Undergraduate students should be encouraged to further their studies in the field of pharmacy to represent the profession in positions of influence where they can make key decisions for the future of pharmacy in the country.

ACKNOWLEDGEMENTS

The authors wish to acknowledge all of the students who assisted in data collection, namely Mphefu Mailula, Sekwale Mashabela, Anzani Matsenene, Tinele Rikhotso, Mireo Sithari, and Elina K Zulu.

FUNDING STATEMENT

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

DECLARATION OF INTEREST STATEMENT

The authors declare that there are no conflicts of interest.

AUTHOR CONTRIBUTION

Study conception, data collection and design: Dr Mncwangi N.P., Dr Mabope L, Analysis and interpretation of results: Dr Mncwangi N., Dr Mabope L, Draft manuscript preparation: Dr Mosiane T.

DATA ACCESS STATEMENT

All authors have complete access to the study data.

DATA AVAILABILITY STATEMENT

All data are incorporated into the article and its online supplementary material.

References

1. World Health Organisation (WHO), 2006. Health Workers. https://www.who.int/whr/2006/06_chap1_en.pdf [Accessed 28 February 2020].
2. Gilbert L. Community pharmacy in South Africa: A changing profession in a society in transition. *Health & Place*. 1998;4(3):273-285. [https://doi.org/10.1016/S1353-8292\(98\)00020-3](https://doi.org/10.1016/S1353-8292(98)00020-3)
3. Masango A. Pharmacy Human Resources in South Africa. South African Pharmacy Council <https://www.sapc.za.org/Media/Default/Documents/Pharmacy%20Human%20Resources%20in%20SA-2011.pdf> [Accessed 28 February 2020]. 2011.



4. South African Pharmacy Council (SAPC). Statistics, Pharmacists By Province - 08 April 2020. <https://interns.pharma.mm3.co.za/Statistics/PersonsByPharmacistRoleProvince?class=btn%20btn-primary>. 2020.
5. Covey JR, Cohron PP, Mullen AB. Examining pharmacy workforce issues in the United States and the United Kingdom. American Journal of Pharmaceutical Education. 2015;79(2):17. <https://doi.org/10.5688/ajpe79217>
6. Alhomound FK, AlGhalawin L, AlGofari G, et al. Career choices and preferences of Saudi Pharmacy Undergraduates: A cross sectional study. Saudi Pharmaceutical Journal. 2019;27:467-474. <https://doi.org/10.1016/j.jsps.2019.01.009>
7. Bates I, John C, Bruno A, et al. An analysis of the global pharmacy workforce capacity. Human Resources for Health. 2016;14(61):1-7. <https://doi.org/10.1186/s12960-016-0158-z>
8. Office of the Registrar. Registration of pharmacy technical assistants and pharmacy technicians. Pharmaciae. 2017;2(1). Published by South African Pharmacy Council.
9. Mahlathi P. Remuneration Policy for Health Professionals Employed in the Public Health Sector. Department of Health, Republic of South Africa. http://learning.ufs.ac.za/INTERNAL_MEDICINE_ON/Resources/2.%20ADMIN%20information/3.%20MMED_FCP%20%20and%20INTERN%20INFO/8.%20OSD%20BOOKLET/OSD%20booklet_1.PDF [Accessed 28 February 2020].
10. Anderson S. The State of the World's Pharmacy: A Portrait of the Pharmacy Profession. Journal of Interprofessional Care. 2002;16(4):391-404. <https://doi.org/10.1080/1356182021000008337>
11. Gray A, Riddin J, Jugathpal J. Health care and pharmacy practice in South Africa. International Perspectives on Pharmacy Practice. 2016;69:36-41. <https://doi.org/10.4212/cjhp.v69i1.1521>

APPENDIX A: QUESTIONNAIRE

TOPIC: A review of the career choices of Sefako Makgatho Health Sciences University pharmacy graduates from 2015 to 2019 – A pilot study

CONSENT

By completing this questionnaire, I consent to participate in this study. I fully understand the purpose of this study and I have been given sufficient information about the research. I understand that my contribution will be confidential and that there will be no personal identification in the data. I understand that my participation in this research is voluntary, I am free to refuse to participate and I am free to withdraw from the research at any time.

1. DEMOGRAPHICAL INFORMATION										
Date of Birth:	dd/mm/year					Age:	years			
Gender:	Male			Female			Other (Specify)			
Race:	Black		White		Coloured		Other (Specify)			
Marital Status:	Single			Married		Divorced		Widowed		
2. EDUCATIONAL BACKGROUND										
Highest qualification:	PhD		Master's Degree			Bachelor's Degree				
Number of years post registration with SAPC	≤5 yrs		6-10 yrs		11-15 yrs					
How long did it take you to complete the course?	4 yrs			5 yrs		6 yrs				
Which sector did the BPharm training received best prepare you?	Industry			Community		Hospital		Academic		None
Do you have any other degree besides pharmacy?	Yes						No			
If yes, specify:										
3. EMPLOYMENT DETAILS										
Current employment status										
Full-time	Part-time			Self-employed			Unemployed			
What is the level of seniority of your current position?										
Operational			Middle Management				Executive			

CAREER CHOICES

INTERNSHIP	
Year of internship:	
Name of Employer:	



Public/Private Sector: <i>Please circle the correct one</i>							
COMMUNITY SERVICE							
Year of community service:							
Province of Employment:							
EXPERIENCE							
With regard to your career, how much time have you spent in the various sectors of pharmacy?							
Community	< 1 year	Hospital	< 1 year	Industry	< 1 year	Academia	< 1 year
	1–2 years		1–2 years		1-2 years		1-2 years
	2-3 years		2-3 years		2-3 years		2-3 years
	> 3 years		> 3 years		> 3 years		> 3 years
	N/A		N/A		N/A		N/A

THE INFLUENCE OF DIFFERENT FACTORS ON PHARMACY GRADUATES' CAREER CHOICE

Factor	INFLUENCE		
	Large influence (1)	Moderate influence (2)	No Influence (3)
Personal interest			
Remuneration			
Influence of family and friends			
Influence of faculty member			
Reputation of the organization			
Course content in the program and training experience			
Experience gained through work-based learning			
Opportunities for learning and development			
Competitive salary			
Friendly work environment			
Service to the community			

GENERAL COMMENTS

THANK YOU FOR YOUR PARTICIPATION



APPENDIX B: ETHICAL CLEARANCE

Approval Letter_SMUREC Mail: x +

File | C:/Users/nontobeko.mncwangi/Documents/BPharm%20IV%20projects/SMU%20graduates%20track%20and%20trace/Approved%20by%20SMUR...

1 of 1

Read aloud | Draw | Highlight | Erase

SEFAKO MAKGATHO HEALTH SCIENCES UNIVERSITY

Postgraduate Studies, Research Development, Integrity & Ethics
Sefako Makgatho University Research Ethics Committee (SMUREC)

APPROVAL NOTICE - NEW APPLICATION

05 March 2020

MC Makhala, SP Mashabela, A Mabeene, TL Rikotoe, M Sitar & EK Zulu
Department of Pharmacy
P.O Box 218
Medunsa
0204

MEETING: 02/2020

SMUREC Ethics Reference Number: SMURECP1712020: UG

The New Application received was reviewed by members of Sefako Makgatho University Research Ethics Committee on **05 March 2020** and was approved on **05 March 2020**.

Title: A 10-year review of the career choices of Sefako Makgatho Health Sciences University Pharmacy graduates from 2003 to 2012


Researcher: MC Makhala, SP Mashabela, A Mabeene, TL Rikotoe, M Sitar & EK Zulu
Supervisor: Dr NP Mncwangi
Co-supervisor: Mrs LA Mabope
Department: Pharmacy
School: Pharmacy
Degree: B Pharm

Approval Period: 05 March 2020 – 05 March 2021

After Ethical Review: Kindly remember to use your protocol number **SMURECP1712020: UG** on any documents or correspondence concerning your research protocol with the REC. The REC has the prerogative and authority to ask further questions, seek additional information, require further modification, or monitor the conduct of your research and the consent process. A template of the progress report is obtainable from the Research Office and is due on an annual basis for your study irrespective of the approval period. Please note that a number of projects may be selected randomly for an external audit every year. Translation of the consent document in the language applicable to the study participants should be submitted if required.

International Organisation (ORG0000891), Institutional Review Board (IRB000010388) Expiry date: 07 December 2021, Federal Wide Assurance (FWA000022943) Expiry date: 03 March 2021 and MUREC No: REC 210408-040

Sincerely


PROF C BAKER
CHAIRPERSON SMUREC

Moketeng Street, Ga-Rankina
Pretoria, Gauteng
PO Box 163, Medunsa, 0204
www.smru.ac.za

Telephone: +27 11 524 5627 / 3044
Facsimile: +27 11 524 3148
Email: lorato.p@smru.ac.za

Type here to search

11:53
2020/11/28

