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Psychopharmacology: The case for prescribing psychologists in South Africa

Opinion Article

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Abstract

In South Africa, clinical psychologists conduct psychological assessments and psychotherapy, but they do not prescribe medications. Psychiatrists prescribe and can conduct psychotherapy. The general and specialist medical practitioners prescribe psychotropic medications but refer patients to psychiatrists for specialist management. Nurse Practitioners are not allowed to initiate prescriptions, but they can repeat them. This paper provides evidence that it is desirable, and feasible, to train psychologists to prescribe safely and effectively. Prescribing psychologists have high-level training in both psychotherapy and psychopharmacology. For this reason, they are better placed than non-prescribing psychologists or psychiatrists to provide integrated and versatile mental health interventions at reduced costs. Prescriptive Authority promote the professional independence of psychologists. The Task Team of the Pharmacology Association for South African Clinical Psychologists recommends an expansion of the scope of practice for the psychology profession. The expansion would enable specialist psychologist registration, under various categories, amongst them prescribing, clinical, educational, industrial, neuropsychology, and others. The Task Team recommends that the Undergraduate and Honours degrees should be combined into a 4–5-year degree, leading to professional registration as a General Practice Psychologist. This degree would cover the current course content of Psych I, II, and III; basic medical sciences including anatomy and physiology; and the applied courses currently on the Honours degrees, such as psychometry and counselling. The General Practice Psychologists would practice in all areas of psychology, at a non-specialist level.

Keywords: Psychopharmacology; Prescriptive Authority; Psychologists; Psychotherapy; Psychotropic Medication; Mental Health.

Introduction

History of the Prescriptive authority Movement South Africa

The proposal that psychologists should be granted prescriptive authority (RxP) has been under active discussion in the USA and other countries for more than 30 years. A major motivation for getting appropriately trained psychologists to prescribe was, and still is, the inaccessibility of mental health services in many communities, because of the shortage of psychiatrists [1]. Lindegger [2] identified some of the reasons frequently offered in support of prescriptive authority for psychologists:

- Prescribing psychologists would be able to provide integrated therapy, catering to both the biological and psychosocial needs of patients.
- Combined pharmacological and psychosocial treatment

by a single individual allows for closer monitoring of various aspects of treatment, and greater consistency than the involvement of two therapists (psychologist and psychiatrist).

- It is more convenient, and cost-effective, for the patient to see one professional rather than two or more.
- Prescriptive authority would promote professional autonomy for psychologists. Lindegger notes that in most countries, psychologists had developed from being assistants in psychiatric teams to being independent professionals. Prescriptive authority would promote further professional autonomy for psychologists.

In the late 1990's and early 2000's, the Psychological Society of South Africa (PsySSA) applied, through the Health Professions Council of South Africa (HPCSA), for Prescriptive Authority for clinical psychologists. The Association also arranged for the Department of Pharmacy at the University of the Witwatersrand (WITS) to commence training for psychologists. One of the authors (JM) was a student on the training course. Within a few months of starting the training program, the Medicines Control Council of South Africa declared that prescribing psychologists would endanger patients and PsySSA discontinued the training. A group of psychologists formed the Pharmacology Association for South African Clinical Psychologists (PASACP) in 2017, to continue the campaign for prescriptive authority.

The Prescriptive Movement in the USA & Other Countries

The US Department of Defence was the first to implement a training program for psychologists to prescribe. The first two prescribing psychologists graduated from the US Navy's psychopharmacology training program in 1994. Since then, legislation allowing appropriately trained psychologists to prescribe was passed in New Mexico, Louisiana, Illinois, Iowa, and Idaho. The APA published practice guidelines for prescribing psychologists [3]. More recently, the APA published the latest guidelines for the Postdoctoral MSc in Clinical Psychopharmacology degree [4]. Psychologists graduating from the APA-approved postdoctoral programs have been prescribing safely and effectively in the USA for more than 20 years.

In South Africa, the PASACP leads the campaign on prescriptive authority for psychologists. Two members of the PASACP (JF & TR) attended an international meeting on prescription authority, called by the International Movement of Prescriptive Authority for Psychologists (IMPAP) in February 2021. Soon after the meeting, the PASACP and IMPAP forged an alliance. The two associations jointly conducted a successful 2-day online international conference on prescription authority, hosted from South Africa on 13 & 14 November 2021.

In hindsight, considering the progress of the prescriptive movement internationally, the first South African attempt to secure prescription authority about 20 years ago was bound to fail. The first weakness of the program was that the training was not at a degree level. The second weakness was that the training modules focused primarily on psychopharmacology but did not include the medical training necessary for safe and effective prescribing. The USA experience indicates that training psychologists for prescriptive authority should start at a doctoral or postdoctoral level. It requires knowledge and practical training in areas such as those set out by the Association of State and Provincial Psychology Boards (2019) [5] table 1.

After completion of the postdoctoral MSc in clinical psychopharmacology, and the PEP (Pharmacology Examination for Psychologists)… prospective prescribing psychologists undergo about a 14- month rotation through nine medical specialty departments. During this rotation, the candidates practice medical skills, including physical examination, laboratory testing, and neuroimaging. The training program that was set up in South Africa fell far short of these standards.

The current training programs for prescribing psychologists (APA, 2019) include modules in both general pharmacology and psychopharmacology [4]. Because of this, prescribing psychologists have a firm grounding in general medical pathology and non-psychiatric medications. However, unlike psychiatrists, prescribing psychologists do not prescribe for non-psychiatric disorders. The training in both general pharmacology and psychopharmacology enables the prescribing psychologists to collaborate more effectively, with psychiatrists and other medical specialists, by performing functions such as the following, amongst others:

- Detection of psychotropic-induced medical emergencies, such as neuroleptic malignant syndrome.
- Monitoring the side effects of psychotropic medications, such as tardive dyskinesia, renal impairment, metabolic syndrome, and thyroid dysfunction.
- Monitoring of general medical well-being e.g., for patients with diabetes, hypertension, and others.

Why interested and appropriately trained psychologists should acquire prescriptive authority

PEP Knowledge Areas	
Neuroscience	Pharmacology (General)
Nervous system pathology	Clinical psychopharmacology
Physiology and pathophysiology	Research
Biopsychosocial and pharmacological assessment and monitoring.	Professional, legal, ethical and inter professional issues
Differential diagnosis	

Table 1: Knowledge Areas for the Pharmacology Examination for Psychologists.

There are multiple reasons why interested psychologists and appropriately trained psychologists should acquire prescriptive authority.

There is an urgent National need for prescribing mental health professionals: There is a severe shortage of prescribers for psychotropic medications in South Africa. According to the investigation by the World Health Organization (2007) [6], South Africa has less than one psychiatrist, and less than one psychologist for every 100, 000 of the population. This means that even if all the psychologists and all the psychiatrists in the country were to prescribe, there would still be a severe shortage. De Kock and Pillay found [1] that the number of psychiatrists working solely in rural areas has decreased over the years, while the number of psychiatrists qualifying each year is still insufficient to cater to the country's needs. Prescribing psychologists would help to alleviate this shortage.

Despite concerns to the contrary, evidence shows that psychologists can be trained to prescribe safely and effectively: The leading argument against prescriptive authority for psychologists has been that psychologists cannot prescribe safely and effectively because they do not have medical training [7-9]. This concern was justified in the early 1980's and the 1990's. There was no evidence then, that psychologists could be trained to prescribe safely and effectively. In the years that followed, several publications provided evidence in support of prescribing authority.

A study by Shearer, Harmon, Seavy, and Tiu [10] found as follows: "Results indicate family medicine providers agree that having a prescribing psychologist embedded in the family medicine clinic is helpful to their practice, safe for patients, convenient for providers and for patients, and improves patient care" (p. 420).

Similarly, Linda and McGrath [11] conducted a survey, which found that prescribing psychologists were overwhelmingly perceived positively by their medical colleagues across various domains. These domains included ratings on the adequacy of training to prescribe medication, adequate knowledge of medical terminology, knowledge of medical tests relevant to prescribing, appropriate consultation with other medical professionals, knowing when it is appropriate to refer to other medical professionals, and increasing patient access to care.

Prescriptive authority is the natural and rational next step in the evolution of the psychology Profession: Psychology, like any other profession, evolves over time. In the earliest days, for example, psychology was not an applied science but was a philosophy discipline. It did not have the clinical, industrial, educational, or the other applications in widespread practice today. Wilhelm Wundt [12] made an outstanding contribution to psychology when he established the first psychology laboratory at the University of Leipzig, Germany. This development turned psychology into an experimental science. The Second World War provided a major impetus to the evolution of psychology. Bazar [13] noted that World War II marked the move of clinical psychologists from a heavily psychometric-focused domain to a primarily clinical setting Prior to this period, psychologists did not work in hospitals. This was a major step forward for the psychology profession. Prescribing authority would be similarly a major step forward.

Another development, which makes prescribing a natural next step for psychologists, is the increasing recognition of the biological substrates of psychological phenomena [14]. This recognition is revealed by the names given to some psychology disciplines, such as psychophysiology, neuropsychology, biological psychology, neurocognitive, behavioural neuroscience, and others.

The idea that psychological processes have biological underpinnings is supported by empirical evidence that psychotherapy brings about neurobiological effects just as medication does. Santos, Carvalho, Van Ameringen, Nardi, & Freire for example [15], found abnormalities in the hippocampus, amygdala, iFG, uncus, and areas linked with emotional regulation (dlPFC and ACC), predict a good outcome of psychotherapy in anxiety disorders. These outcomes can be confirmed by neuroimaging studies, such as those using functional MRI, PET scans, and others [16].

Mureriwa [14,17,18] proposed that psychotherapy and medication are both effective treatments because they share a final common neurobiological pathway, the modulation of the autonomic nervous system (ANS) Many psychotropic medications target the ANS neurotransmitters epinephrine, norepinephrine, and acetylcholine, alongside other neurotransmitters such as dopamine, serotonin, and GABA. In like manner, successful psychotherapy has calming effects, which reflect a reduction in the fight, flight, or freeze responses associated with the sympathetic branch of the autonomic nervous system.

Meta-analytic studies, such as that by Kamenov, Twomey, Cabello, Prina [19], and Ayudo-Mateos and Merz, Schwarzer, and Gerger [20] show that psychotropic medication and psychotherapy are more effective when they are combined. There is no apparent rational justification for either the psychologist or the psychiatrist, to offer only half the treatment. Psychiatrists do offer psychotherapy in addition to medication. Psychologists should, likewise, offer medication, in addition to psychotherapy.

Prescribing is compatible with the recognition of psychology as a health profession that is growing increasingly diversified as a science and practice. It is the natural and rational next step in the evolution of the psychology profession.

Prescribing psychologists can make significant contributions to disease surveillance in south africa: There is a global shortage of healthcare workers [21]. Consequently, many individuals with health problems never get to see a doctor and remain undiagnosed and untreated. Some of these undiagnosed persons may consult a psychologist for an emotional or cognitive problem. Non-prescribing psychologists would use the therapeutic encounter to diagnose mental disorders but would not have

the capacity to recognize potential medical problems. The prescribing psychologist, on the other hand, can contribute to general disease surveillance, by recognizing both mental and medical problems.

Prescribing psychologists contribute to reduced turnaround times for medication, therapeutic intervention, and referral: In both the South African National Defence Force and the civilian population, there is a need for a robust and efficient mental health management process that will enable interventions in the shortest possible time. For the military, this will ensure an adequate flow of combat-ready population. During military deployments, primary care physicians, with limited training in psychiatry or psychology, prescribe most psychotropic medications. Psychologists provide psychosocial interventions but cannot prescribe the required medications. Because of these limitations, military personnel with serious pathology often require repatriation back to South Africa for diagnosis and treatment. The repatriations entail treatment delays, and they are costly. Prescribing psychologists in the army would be able to provide the timely and urgently needed integrated mental health interventions for the military personnel. This is commensurate with the ethical and legal standards for the practice of psychology, to apply their expertise to the full spectrum of health issues .

Prescribing psychology is more in tune with the fact that most patients are on medication or need medication: Most patients which psychologists deal with in hospitals are on medication and a considerable proportion of patients seen as outpatients are also on medication. It is therefore rational, that all health practitioners, including psychologists, should have at least a working knowledge of pharmacology. The added advantage for the prescribing psychologist is that he or/she will not only understand the medication but will also have the competence to manage it.

Prescribing psychologists make many unique contributions to mental health care: Some of the ideas expressed here were extracted from presentations made at the first international conference by the International Movement of Prescriptive Authority for Psychologists (IMPAP), 20 – 21 February 2021

It is a new profession in mental health (Dr. Elaine LeVine):

- This new profession is not just medication management or psychotherapy, but an integration of the two, the best of both worlds.
- It is more convenient and cheaper for the patients, to see one therapist, either a psychiatrist who offers psychotherapy, or a psychologist who also prescribes. When a patient receives psychotherapy from a psychologist and a psychiatrist, there is a likelihood that he or she will sometimes receive conflicting advice or may be uncomfortable with one of the practitioners.
- Marlin Hoover (IMPAP Conference 2021) commented that prescribing psychology is state of the art treatment, not disjointed service shared between psychologist and psychiatrist.

Prescribing psychologists are more versatile than non-prescribing psychologists and psychiatrists:

- Psychiatrists are more versatile in the provision of integrated therapy than psychologists because their training and scope of practice allow them to prescribe medication and provide psychotherapy. Non-prescribing psychologists are so dependent on psychiatrists that they cannot run a rural outpost all by themselves, as a psychiatrist can.
- Even though the psychiatrists can provide integrated treatment, the service is not optimal because, as a profession, psychiatrists are less skilled than psychologists to provide psychotherapy.
- When a psychiatrist is not available, a prescribing psychologist can manage a wider range of clinical problems than a non-prescribing psychologist.
- The prescribing psychologist is trained to perform physical assessments, and thus to recognize non-psychiatric disorders. He or she can make more timely referrals to an appropriate health practitioner, including a GP.

Prescribing psychologists have a high level of prescribing competence: When evaluated on prescribing competence in a recent US study, prescribing psychologists performed better than practicing psychiatric nurses and non-psychiatric physicians. In this same study, psychologists with prescription authority show-cased a statistically similar competence as psychiatrists [23].

Prescribing psychologists can unprescribe:

- Because psychologists have extensive training in psychological interventions, prescribing psychologists would be in a better position to unprescribe medication and replace it with psychotherapy, when indicated. Dr. Kirstein Kochanski (US Navy) – at IMPAP (2021) stated that for psychologists, psychotherapy remains the primary tool, not medication. There is, however, the added advantage of being able to unprescribe. Linda and McGrath point out that the greater psychosocial training received by psychologists, may protect against overreliance on medication. The psychologists have a larger toolkit of psychotherapy to choose from than psychiatrists.
- For psychiatrists, medicating patients is typically routine, especially if the patient is in hospital. The non-prescribing psychologist has no say in whether a patient is medicated or not. On the other hand, the prescribing psychologist has more options than the psychiatrist or the non-prescribing psychologist.
- Psychologists see their patients more regularly than do most other providers. This provides the opportunity to easily address side effects, make medication changes, and adjust and monitor the efficacy of medication [24]. The

current training of psychologists already allows them to do comprehensive mental status examinations to detect atypical presentations and changes in patients and to make differentials based on signs & symptoms. Additional training in medical sciences related to prescribing will enable psychologists (prescribing or not) to contribute more to patient care, than is the case at present.

Prescription Authority Enhance the Professional Independence of Psychologists

Professional Independence for Psychologists Requires Prescriptive Authority: Pertinent to this paper's discussion about prescriptive authority, Pillay [25] published a paper aptly entitled, "The Independence of 'Independent' Practitioner Psychologists". The paper describes the disillusionment of psychologists who perform their duties within hierarchical structures under psychiatrists. Similarly, even though psychologists are nominally independent practitioners, they cannot admit or discharge patients without the authority of a psychiatrist.

Some medical aid societies demand that the psychologists should provide proof that a psychiatrist "referred" a patient to them, even though the psychologist saw the patient first, then referred to the psychiatrist. Furthermore, even though psychologists are more qualified than psychiatrists to conduct psychotherapy, the psychiatrists get paid more for the same procedure.

For purposes of remuneration, some, and perhaps all, medical aid societies, categorize psychologists as allied health professionals or auxiliary services. This justifies paying psychologists less than medical practitioners, even for psychotherapy, for which the psychologists are the experts. Further to this, it is notable that psychologists do not qualify for registration as specialists. In the government services, promotion to the rank of a senior psychologist is based on the number of years in service, and not because of specialist training or skills. Psychiatrists are medical specialists. This is the reason they get higher salaries from medical aid societies and from government services.

The Task Team concluded that it is likely that psychologists are not recognized as specialists primarily because they do not have prescription authority, and therefore, they are not full-fledged independent practitioners. In the prescriptive movement, one of the favourite expressions is that "Prescribing is Power." Prescription authority for psychologists is not only good for patients; it is also good for the psychology profession itself.

For South African psychologists to get prescriptive authority, it will be necessary to expand the scope of practice for the psychology profession and to amend the curriculum

Proposed changes to the training curriculum for the psychology profession: The expansion of the scope of practice for prescriptive authority necessitates changes to the psychology curriculum at both undergraduate and post-graduate levels. These changes are necessary for those who wish to become prescribing psychologists, but they are also desirable for those who do not wish to prescribe. This concept was explained in the opening address (J. Mureriwa) to the PASACP/IMPAP International Conference of 13-14 November 2021.

.. The plan is not to lobby for prescription authority for every member of our profession. Rather, our consensus is that prescription authority should be granted only to interested, and appropriately trained members. We argue that because psychology professionals are health practitioners, they should all have more than just a passing knowledge of psychopharmacology and the medical sciences relevant to prescribing. In other words, our consensus is that all psychology professionals should have some involvement with psychopharmacology.

- At the lowest level, the psychology professional has basic familiarity with all classes of psychotropic medications. This practitioner cannot advise patients about medications or discuss medication options with medical practitioners. They would, however, understand what the prescriber is trying to achieve, and would know the potential side effects of drugs.
- At a higher level, the practitioner has sufficient knowledge to discuss medication issues with the referring medical practitioners. They will be able to advocate for their patients with the prescribers.
- The prescribing psychologists will have the highest level of involvement with psychopharmacology. This requires in-depth training in clinical medicine, physical assessment, general pharmacology, psychopharmacology, and other clinical subjects

The primary change to the proposed new curriculum is that anatomy, physiology, chemistry, and other basic medical sciences will become an integral part of the syllabus for psychologists. This will bring psychology in line with all the other health professions, which are based on a firm footing in anatomy, physiology, and chemistry. These proposals were published by PATISA (Psychological Association for Transformation and Innovation, South Africa) Mureriwa et al [26] and they are summarized here:

1) A four to five - year undergraduate degree, leading to registration as a General Practice Psychologist. This is feasible, because some students, especially those doing a BSc in psychology, already take these courses as part of their degree The course content would include:

- The current undergraduate First year psychology courses (Psych I), Second year psychology courses (Psych II), and Third Year psychology courses (Psych III).
- Basic medical science courses, including anatomy, physiology, chemistry, and others).
- Medical terms and pathology.
- Psychological Assessments (Clinical, industrial, educational).

- Medical assessments (vital signs, review of systems, case reporting).
- Psychological Interventions in various areas of applied psychology, namely clinical, counselling, educational, industrial, psychometry, neuropsychology, and research).
- Internship geared to general practice in psychology. This would cover the scope of practice for all the current Health Professions Council of South Africa (HPCSA) psychology registration categories.

2) Postgraduate Degrees

- Masters, doctoral, and post-doctoral degrees.
- Specialist training in areas of clinical, counselling, educational, industrial, neuropsychology, prescribing, psychometry, and research.

3) Structured Continuing Education Training for Registered Master's Level Psychologists (All registration categories).

- Programs can be structured to lead to registration as specialists. In other words, instead of psychology professionals accumulating a random collection of courses to satisfy HPCSA CPD requirements, they would follow a specified set of training courses, which will lead to specialist registration.
- The Task Team proposes that for psychologists interested in registration as specialists, the CPD training should aim at filling the gaps in basic medical science education for all the psychology professions. This is in line with the requirements by the HPCSA (2019) that clinical psychologists should demonstrate familiarity and knowledge of medical terminology, and first aid [27].
- The CPD programs would include practical applications of medical neuroscience to all psychology disciplines.

Summary

Interest in prescribing authority for psychologists has been around for at least 30 years. Some health practitioners oppose the proposal for prescriptive authority for psychologists. The primary objection is that psychologists do not have medical training, and thus would not be able to prescribe safely or effectively. This concern no longer carries weight, because prescribing psychologists do get medical training, including physical assessment [28]. The Postdoctoral MSc in clinical psychopharmacology covers all the medical and clinical sciences necessary for the safe and effective prescribing of psychotropic medications. This is followed by a state examination (equivalent to the HPCSA Board Examination), and a 14-month clinical rotation through medical specialty departments.

The competence of appropriately trained psychologists to prescribe has been confirmed by more than 20 years of successful prescribing by psychologists in the USA [10, 11].

In addition to the evidence that psychologists can be trained to be safe and competent prescribers, there are several other reasons for granting prescribing authority. These include the fact that there is a dire shortage of prescribers for psychotropic medication. The prescribing psychologists can help to reduce the shortage. When compared to non-prescribing psychologists and psychiatrists, prescribing psychologists are best placed to provide optimal integration of psychotherapy and pharmacotherapy, by the same therapist at a cheaper cost. Prescribing psychologists are more versatile than non-prescribing psychologists or psychiatrists. They can unprescribe, to focus on psychotherapy when that is indicated. On the other hand, the prescribing psychologist can temporarily reduce the number or length of psychotherapy sessions to provide relief through psychotropic medications, as needed. Finally, prescriptive authority promotes professional independence for psychologists. This independence is likely to bring about more job satisfaction, and the capacity for further innovation, as the profession evolves. The PASACP Task Team recommends changes to the curriculum of psychology degrees, at both the undergraduate and postgraduate levels. This will enable psychologists interested in prescribing to acquire the necessary competencies. Psychologists who do not wish to prescribe still benefit from being knowledgeable about pharmacology, as they work in other specialist fields in psychology.

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