



Psychedelics as a novel treatment: Describing the awareness and attitudes of South African psychiatrists.

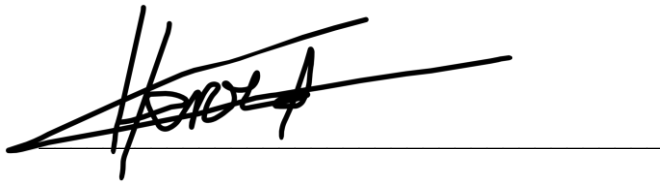
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608366

A research report in the format of a “submissible” paper submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg in fulfilment of the requirements of the degree of Masters of Medicine (Psychiatry), 2025.

Candidate Declaration

I Cherith Rebekah Herold hereby declare that this Research Report is my own, unaided work. It is being submitted for the Degree of Masters of Medicine (Psychiatry) at the University of the Witwatersrand, Johannesburg. The submission is in submissible format with my completed protocol. It has not been submitted before for any degree or examination at this or any other University.

A handwritten signature in black ink, appearing to read 'Herold', is written over a horizontal line.

(Signature of candidate)

On this the 9th day of the month of January 2025 at Parkhurst Johannesburg

Abstract

Background: Psychedelics have shown promising outcomes as a novel treatment option across a range of mental illnesses. There is a growing body of literature that has preliminarily shown classical psychedelics to be effective and relatively safe. The research that exists is primarily pilot studies of small samples sizes. The literature up to now has been focused on the drug properties of psychedelics and the experience of the users. The researchers identified a gap in research describing the prescribers and their awareness, interest, and confidence regarding these novel agents.

Aim: The aim was to describe the awareness and attitude of South African psychiatrists towards psychedelics as novel treatment agents.

Setting: The study focused on qualified and registered psychiatrists practicing in South Africa.

Methods: The study was a cross-sectional online survey. The researchers designed and generated the questionnaire. Convenience sampling was employed within a sampling frame. The online survey was distributed using the data base of psychiatrists registered with the South African Society of Psychiatrists.

Results: The results showed that South African psychiatrists are interested and keen to receive more information. High rates of hesitancy surrounding psychedelic treatments were reported and reflect the valid concerns surrounding PAT.

Conclusion: The population of South African psychiatrists who are predicted to be the primary gatekeepers and prescribers of PAT are not confident in prescribing the novel treatment of psychedelics.

Contribution: The research has highlighted the need to consider prescribers when implementing novel treatment agents. There is a need to address prescriber concerns and improve training.

Key words: Psychedelic Assisted Therapy (PAT), psychedelics, novel treatment options, awareness, attitudes.

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Presentations arising from research project

On the 19th of June 2024, the researcher presented the project at the Department of Psychiatry, the University of Witwatersrand Annual Research day.

On the 5th of September 2024 the researcher was included in the program for the Wits School of Clinical Medicine research day.

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Abbreviations

CBT: Cognitive Behavioural Therapy

DMT: N, N-dimethyltryptamine

HPCSA: Health Professions Council of South Africa

HPPD: Hallucinogen Persisting Perception Disorder

LSD: lysergic acid diethylamide

MDMA: 3,4-methylenedioxy-methamphetamine

OCD: Obsessive Compulsive Disorder

PAT: Psychedelic assisted therapy

POPIA: Protection of Personal Information Act

QIDS-SR: Beck Depression Inventory and the Quick Inventory of Depressive Symptomatology

SASOP: South African Society of Psychiatrist

USA: United States of America

YLD: Years Lived with Disability

Title

Psychedelics as a novel treatment: Describing the awareness and attitudes of South African psychiatrists

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Research report Statement

A research report submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, in fulfilment of the requirements for the degree of Masters of Medicine (Psychiatry)

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The authors declare that there is no conflict of interest.

Abstract

Background: Psychedelics have shown promising outcomes as a novel treatment option across a range of mental illnesses. There is a growing body of literature that has preliminarily shown classical psychedelics to be effective and relatively safe. The research that exists is primarily pilot studies of small samples sizes. The literature up to now has been focused on the drug properties of psychedelics and the experience of the users. The researchers identified a gap in research describing the prescribers and their awareness, interest, and confidence regarding these novel agents.

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Key words: Psychedelic Assisted Therapy (PAT), psychedelics, novel treatment options, awareness, attitudes.

Introduction

Defining psychedelics

Psychedelics is a term that translates to mean ‘the mind or soul manifesting’ (1). This study will refer to psychedelics utilising the definition of a classical psychedelic which indicates that the substance is either a full or partial agonist of the serotonergic 5-HT_{2A} receptor that results in an altered state of consciousness (2,3). Substances that fulfil this definition include LSD (lysergic acid diethylamide), psilocybin, mescaline and N, N-dimethyltryptamine (DMT).

Psychedelic drugs have been a part of healing rituals in many cultures for centuries due to their mind-altering properties (4,5). The interest in the therapeutic application of psychedelics became prominent in the western scientific world in the 1940s after Swiss chemist, Albert Hoffman, first synthesised LSD-25 in 1938 (6).

A brief history of Psychedelics

Psychedelics were being explored as breakthrough drugs as adjuncts to therapy. Early studies indicated that LSD assisted therapy showed positive results for the treatment of anxiety, depression, obsessive compulsive disorder, addiction, and relieving pain associated with cancer (6,7). Research on psychedelics was stopped when in 1970 the USA passed the Controlled Substances Act. In terms of this Act, psychedelic substances were listed as Schedule 1 drugs, a category reserved for substances with a high potential for abuse with no medical application (7). The studies conducted in the 1960s were numerous (more than two thousand clinical papers were written) but do not meet the standard of research for evidence-based medicine.

Literature review summarising the therapeutic application of psychedelics.

Defining PAT

Johnson et-al., 2008 (8), defines the concept of *psychedelic assisted therapy (PAT)* as per The Johns Hopkins Group’s: *Guidelines for Safety in Human Hallucinogen Research*. The definition includes set and setting conditions (8). PAT takes place in controlled safe environments, with screened participants and must be conducted by

trained practitioners such as psychologists and psychiatrists. Patients are extensively screened for any personal or family history of psychosis to reduce the risk of Hallucinogen Persistent Perceptual Disorder (HPPD), a phenomenon described in patients who used psychedelics recreationally and in large quantities (4). These sessions are preceded by at least two therapy sessions to prepare the participant. Preparation sessions include psychoeducation and a discussion to anticipate the content that may emerge during the session. The mental state of the patient, personality, suggestibility, motivation, mood and psychopathology are referred to as the 'set'. The aesthetic environment that PAT takes place in is termed 'the setting' (4,9,10). Post-administration sessions of the psychedelic agent, the participant receives approximately four debriefing psychological sessions.

Psychedelics in the context of South Africa

In South Africa, the use of classic psychedelics is illegal, and psychedelics are classified as schedule 7 substances (11). The South African Society of Psychiatrists (SASOP) released a position statement on the use of PAT in November 2022. SASOP concluded that the evidence is not sufficiently compelling to justify the use of PAT outside of research. Clinicians are to consider the ethics of non-maleficence and encourage harm reduction in patients who disclose use, or an intent to use psychedelics.

A summary of the research on psychedelics

The potential use of psychedelics as a novel treatment agent (defined in this article as an early phase clinically tested agent) has been reassessed within psychiatry following the first pilot study being conducted by Carhart-Harris et al., in 2016 (12). The study showed that utilising psychedelics for treatment resistant depression showed improvement in both the Beck Depression Inventory and the Quick Inventory of Depressive Symptomatology (QIDS-SR). A subsequent phase 2 double blinded study by Carhart-Harris et al., in 2021 (13), comparing the antidepressant escitalopram and PAT showed promise but not superiority to current available and approved treatments.

PAT has been considered for a number of psychiatric conditions; a 2020 systematic review included 43 studies on a range of applications (14). LSD based PAT was explored for anxiety associated with life threatening illness (15), and application of psilocybin for OCD found symptom reduction (16). The combination of PAT and

cognitive behavioural therapy (CBT) was explored for smoking cessation (17) and alcohol abstinence (18). Psychedelics elicit significant and enduring changes to personality, specifically resulting in an increase in the openness domain (19). Terminal patients who were given PAT reported experiencing ‘enhanced recognition of the intrinsic meaning and value of life’ (20). A qualitative study conducted on the role of PAT in eating disorders indicated that PAT was a potential therapeutic tool to improve body satisfaction (21). The above studies’ results cannot be generalised due to the small sample sizes.

Appraisal of research on the topic of PAT

There are limited studies on classical PAT, the majority of which are low power pilot studies designed for proof of concept. The studies in large, relied on self-reported scales to monitor response, therefore the subjective bias of results must be considered. The studies all follow a similar structure to PAT that is described by the Johns Hopkins Institute, which has 2 implications: the first is that the participants are a very selective group of people with no family history of psychosis or bipolar disorder and thus the results are not generalisable. The second is that participants are receiving extensive therapy prior to and post the ingestion of psychedelic agents. Therapy is thus a confounder, and it is therefore impossible to attribute the responses recorded to the substance alone and not the combination of treatment modalities.

Why the reemergence of interest in psychedelics?

The reemergence of interest in psychedelics within the psychiatric community has been affected by the factors discussed below. Mental illness prevalence has increased globally in the past decade (22). The established treatment options remain insufficiently effective and limited, resulting in an increase of years lived with disability (YLDs).

Research into pharmaceutical treatments for mental health disorders have decreased over the last decade, as several large companies across the USA, United Kingdom, France and Switzerland announced the closure of their central nervous system research portfolios between 2010 and 2013 (23). Lack of funding into research in this field has encouraged the exploration of alternative agents. Psychedelics may improve the medical profession’s understanding of brain physiology, specifically neural plasticity and neuronal connections which may go beyond the scope of psychiatry(24).

Currently used psychotropic drugs have burdensome side effect profiles, require long term use and have drug-drug interactions (20). Psychedelics offer an option that is fast acting and effective: a single dose assisted psychotherapy session has demonstrated reduced symptomatology that remains in remission for more than one year (7).

Psychedelics have no tissue toxicity, few drug-drug interactions and have been proven to be safe under controlled conditions (20).

The reclassification of 2 other notable Schedule 1 drugs namely cannabis and 3,4-methylenedioxy-methamphetamine (MDMA) has made it possible to research previously restricted substances (4,7). On the 1st of July 2023, Australia authorised psychiatrists to prescribe PAT. Psychiatrists must be an “Authorised Prescriber” and have obtained approval from the Human Research Ethics Committee (25). The Food and Drug Administration (USA) has not approved the use of PAT. The official communication in 2023 was the release of a guidance framework for researchers (26).

The topic of psychedelics is currently gaining momentum in popular culture.

Proponents of psilocybin options, state that “they are more effective, more efficient” than classic treatment options (21).

Prescribing behaviours and choices of clinicians

Nielson et al., in 2018 (27), discussed the need for research on how first-hand experience with psychedelics influences therapy with hallucinogens. It has been established that personal experience and clinician specific extra-pharmacological factors influence treatment outcomes (27). A study by Sussex University (28), released in 2021, reviewed the attitudes of psychiatrists toward PAT and explored the barriers regarding its implementation. The study employed a mixed methods approach and had a quantitative and qualitative arm. The study concluded three main points, the first being that the majority of psychiatrists (77.2%) believed that there was a role for controlled psychedelics, the second was that training psychiatrists were better informed on the topic than practicing psychiatrists and thirdly that psychiatrists did not feel prepared to participate in the delivery of PAT. The study was conducted in the United Kingdom, which is famously at the forefront of psychedelic research. The study was conducted in a developed country with different resource considerations compared to a lower-middle income country like South Africa. The results are therefore not generalisable.

Purpose of this study

Clinician confidence in these pharmacological agents and awareness of the topic will have significant impact on the treatment implementation within South Africa in the future. It is currently unclear what the clinical role of psychiatrists will be, should PAT be legalised. The rapid escalation of research in this area has added to the uncertainty around the topic. It is therefore the aim of this study to determine the attitudes, knowledge and factors that affect treatment choices of prescribers who will be entrusted with the monitoring and prescribing of such medications. In addition, the aim is to describe how factors of personal experience with psychedelics and patient profiles affect awareness and attitudes.

The study objectives were as follows:

1. Determine the demographics of the study population.
2. To measure the awareness and knowledge of psychedelic assisted therapy amongst South African Psychiatrists.
3. To determine factors most important to prescribers' choice.
4. To determine the current attitudes of South African Psychiatrists towards Psychedelics.
5. To compare the determined attitudes and awareness with the socio-demographic data to determine significant factors affecting psychiatrist attitudes toward psychedelics.

Method

Study population

The study population was psychiatrists who are members of SASOP, practicing in South Africa from both the public and private sectors. A convenience sampling strategy was employed. At the time of data collection there were 336 email addresses on SASOP database. (SASOP was unable to confirm how many of the accounts were active.) Inclusion criteria were that participants be psychiatrists registered in South Africa, have English language understanding and gave consent to participate. Psychiatrists directly or indirectly involved in the supervision of this research paper were excluded from participation.

Study Design

The study was descriptive and quantitative in nature and employed a cross-sectional online survey method of data collection.

Questionnaire Design

The questionnaire was researcher designed and generated. The questionnaire comprised of 20 questions. The first 3 questions established demographics (sex, age and religion). Questions 4-11 explored profession specifics (qualifications, experience of more or less than 10 years', sector of employment, area of practice, patient setting, profile of patients, and international experience). Question 12 was subdivided into 4 questions that used a Likert scale to assess the knowledge and awareness participants have regarding PAT. Question 13 listed psychiatric conditions and asked participants to indicate which conditions have been studied for potential application of PAT. Question 14 was subdivided into 3 Likert scale questions which assessed the participants attitude toward PAT. Questions 15 and 16 assessed factors that affect prescribers' choice of treatment in general and specifically with regards to psychedelics. Question 15 asked the participants to "Please rate the importance of the following drug factors when choosing a treatment option". Question 16 asked "Which of the following factors are of greatest concern for you regarding psychedelics being implemented as a novel treatment option". Question 15 was created using prescribing factors identified by Denig (29) and included the following factors: Drug safety (numbers needed to harm), efficacy (numbers needed to treat), side effect profile, affordability, accessibility, ease of administration, acceptability of treatment option amongst colleagues, patient preference and training (29). Question 15 was designed to establish current prescribing considerations and their relative importance and question 16 was to establish if psychedelics were to be implemented as a novel treatment, how would this change the way prescriptions are considered. Questions 17-20 explored the participants personal and vicarious experiences with psychedelics. The questions were designed with face value and construct validity measures. Prior to accessing the questionnaire, a consent form was provided.

Data Collection

The participants were identified from the SASOP data base. SASOP distributed the questionnaire by email on behalf of the researchers, the researchers had no access to the database to ensure anonymity and safeguarding of personal information. The

questionnaire was sent to all members with a valid, current working email address on 14 June 2022 with 1 resend. Data collection was terminated on 6 December 2022 as the response rate had plateaued and been stable at zero responses for over a month. One respondent was excluded during data clean up as they had not completed the questionnaire.

Data Analysis

The data was captured using Microsoft Excel. The demographics, prescribing habits and patient profile data was represented as frequencies and percentages of responses. The Likert scale responses determining attitudes and awareness were presented as percentages of responses. A table was created with dependent variables (measures of attitude and awareness) and independent variables (demographics) and analysed using a multivariate categorical regression, the Pearson's chi-square test was performed. A p value of <0.05 was considered significant. A statistician calculated that the study would require a sample size of 112 respondents to have an 80% confidence level.

Ethics Approval

Ethics clearance was obtained by the University of the Witwatersrand Human Research Ethics Committee (Medical department), with the certificate clearance number M220245 on the 06/06/2022.

SASOP reviewed the study design and distributed the study on behalf of the researcher. This ensured that the Protection of Personal Information (POPIA) Act, Section 69, was not contravened. As per Section 18 of the POPIA, no identifiable information was collected and as per Section 11, no personal information was processed by the researcher.

Results

Participants

The questionnaire was distributed to a total of 336 psychiatrists. A response rate of 24.7% was calculated as 83 psychiatrists completed questionnaires. The demographic characteristics of the study participants are represented in Table 1.

Table 1: Demographics of study participants.

<u>Demographics</u>	<u>Male</u>		<u>Female</u>		<u>Total</u>	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
<u>Age</u>						
30-40	9	33.2	23	41.1	32	38.6
41-50	7	26.0	22	39.3	29	35.0
51-60	7	26.0	8	14.2	15	18.1
61 and above	4	14.8	3	5.4	7	8.4
<u>Religion</u>						
Athiest	3	11.1	8	14.2	11	13.3
Christian	15	55.6	28	50.0	43	51.8
Jewish	2	7.4	9	16.1	11	13.3
Muslim	2	7.4	4	7.2	6	7.2
Other	5	18.5	6	10.7	11	13.3
Traditional African	0	0.0	1	1.8	1	1.2
<u>Years Experience</u>						
Less than 10 years	11	40.7	25	44.6	36	43.4
More than 10 years	16	59.3	31	55.4	47	56.6
<u>Employment</u>						
Public Exclusively	5	18.5	18	32.1	23	27.7
Private Exclusively	15	55.6	26	46.4	41	49.4
Public and RWOPS	7	25.9	12	21.4	19	22.9
<u>Area of Practice</u>						
Urban	23	85.2	54	96.4	77	92.8
Rural	4	14.8	2	3.6	6	7.2
<u>Patient Setting</u>						
In Patient	2	7.4	4	7.1	6	7.2
Out Patient	3	11.1	8	14.3	11	13.3
Combination	22	81.5	44	78.6	66	79.5
<u>International Experience</u>						
Yes	9	33.3	9	16.1	18	21.7
No	18	66.7	47	83.9	65	78.3

The participants were asked about the patient profiles they most frequently worked with. Mood disorders were the most commonly seen disorder, 74 (88.2%), followed by anxiety disorders, 47 (56.6%), psychotic disorders, 37 (44.6%) and substance use disorders, 34 (41%).

The awareness of study participants on the areas of PAT application being studied is represented in Table 2.

Table 2: Awareness of participants regarding PAT: Knowledge on area of application being studied.

<u>Diagnostic Category</u>	<u>Participants awareness on areas of PAT appication being studied</u>	
	<u>n</u>	<u>Percentage</u>
Major Depression	74	89.1
Trauma and Related Disorders	58	69.8
Anxiety Disorders	47	56.6
Palliative Care	32	38.5
Obsessive Compulsive Disorder	24	28.9
Eating and Body Dysmorphia Disorder	10	12.0
Bipolar disorder type 1 and 2	10	12.0
Personality disorders	8	9.6
Neurocognitive disorders	4	4.8
Other	4	4.8
Forensic Psychiatry	2	2.4
Schizophrenia spectrum	1	1.2

Awareness of Participants regarding PAT: Training

The study participants were asked about the training they had received on PAT, their confidence and their exposure to the topic via patient discussion. The results are represented in Table 3.

Table 3: Awareness of Participants regarding PAT: Training, confidence and patient discussion.

<u>Response</u>	<u>Received training novel treatment</u>		<u>Received training on psychedelics primarily as a substance of abuse</u>		<u>Felt confident in knowledge on psychedelics</u>		<u>Had patients discuss psychedelic options</u>	
	<u>n</u>	<u>Percentage</u>	<u>n</u>	<u>Percentage</u>	<u>n</u>	<u>Percentage</u>	<u>n</u>	<u>Percentage</u>
Agree	8	9.6	63	75.9	10	12.1	43	51.8
Neutral	8	9.6	12	14.5	22	26.5	7	8.4
Disagree	67	80.7	5	6.0	49	59.0	29	34.9
Not Answered	0	0.0	4	4.8	2	2.4	4	4.8

Self-administered psychedelics – a factor of awareness

Participants were asked if their patients had reported self-administration of psychedelics as well as if they had ever used psychedelics themselves. The question structuring made it clear that the intended consumption of psychedelics was for therapeutic aims and not purely recreational.

The majority of study participants 55 (65%) had patients self-disclose use of psychedelic agents, of those patients 4 (7.3%) had an extremely positive experience, 18 (32.7%) had positive experience, 25 (45.5%) were ambivalent, 7 (12.7%) had a negative experience and 1 (1.8%) had an extremely negative experience. Study participants were asked about personal use and 16 (19.3%) disclosed, 12 (75.0%) had a positive experience, 4 (25.0%) were ambivalent and no participants reported a negative experience.

Prescribing factors.

Table 4 shows the results of how prescribing factors relative importance was affected when participants were asked to consider their general prescription choice to the hypothetical of PAT.

Table 4: Factors rated as most important by participants when comparing general versus PAT prescribing.

<u>Prescribing consideration</u>	<u>Number of respondents choosing ‘Most Important’ in:</u>			
	<u>General prescribing</u>		<u>Psychedelic prescribing</u>	
	<u>n</u>	<u>Percentage</u>	<u>n</u>	<u>Percentage</u>
Drug safety	38	45.8	73	88.0
Efficacy	34	41.0	64	77.1
Side effect profile	18	21.7	43	51.8
Affordability	10	12.1	8	9.6
Accessibility	20	24.1	15	18.1
Ease of administration	8	9.6	10	12.1
Acceptability of treatment among colleagues	4	4.8	8	9.6
Previous prescribing habits	3	3.6	0	0.0
Patient preference	20	24.1	8	9.6
Training received on the treatment during medical school	10	12.1	25	30.1

Attitudes of psychiatrists regarding PAT

The attitude reported by study participants is shown in Table 5

Table 5: The attitude of psychiatrists regarding PAT: interest and hesitation.

<u>Response</u>	<u>Interested in novel treatments</u>		<u>Interested in psychedelics</u>		<u>Have hesitancy to implementation</u>	
	<u>n</u>	<u>Percentage</u>	<u>n</u>	<u>Percentage</u>	<u>n</u>	<u>Percentage</u>
Agree	39	92.8	70	84.3	37	44.6
Neutral	5	6.0	6	7.2	24	28.9
Disagree	1	1.2	1	1.2	19	22.9
Not answered	0	0.0	6	7.2	3	3.6

Attitudes and awareness: the associations with demographic data.

The demographic data was explored to assess if there were variables that were strongly associated with awareness. Psychiatrists who have had less than ten years of practicing experience were more likely to report that they had received training on psychedelics. Only 8 (9.6%) said they had received training on psychedelics and all 8 had less than ten years of experience. None of the participants who had more than ten years of experience reported receiving training. (p-value = 0.013).

The majority of respondents 63 (75,9%) reported that the teaching they had received on psychedelics during their formal training was primarily focussed on psychedelics as substances of abuse. When this was analysed against demographic data no significant correlation was found.

When ‘hesitancy’ of respondents was analysed in terms of the demographic data, the only variable showing a significant difference was sex. It was shown that males were more likely to report confidence than females: 27 (32.5%) males responded with an equal spread of 9 (33.3%) stating they had hesitancy, 9 (33.3%) stating they were neutral and 9 (33.3%) stating they had no hesitancy. When compared to the 56 (67.5%) female respondents, 28 (50.0%) stated they had hesitancy. (p-value = 0.02.)

Discussion

Awareness of Participants regarding PAT: Training

Early career psychiatrists in our study sample were more likely to report receiving training on psychedelics (p- value = 0.013). This finding was supported by Barnett's 2018 article that described a greater optimism for PAT in trainees and the article attributed this to "greater exposure to positive publications" on PAT (30).

The majority of respondents had been taught about psychedelics as a drug of abuse. This result was expected as hallucinogens have historically been viewed as a substance of abuse (31,32). This classification may be a consequence of the Controlled Substance Act of 1970 in the United States of America (7). An alternative view is that despite growing interest, the exact mechanism of these substances is poorly understood (33). Training facilities have an ethical responsibility to ensure that trainees are aware of the negative effects of a substance to formulate realistic risk-benefit evaluations.

Awareness of Participants regarding PAT: Area of application

The knowledge of PAT amongst study participants was primarily focused on depressive disorders, trauma and related disorders and anxiety disorders. There was a lack of awareness of the novel treatment's potential in other spheres of psychiatry. Palliative care, eating disorders and obsessive-compulsive disorders have all shown promising results (16,20,21). The results, at face value suggest a superficial awareness of the applications of psychedelics. It is, however, important to note that the respondents had the greatest exposure to patients with mood disorders and anxiety disorders in their practice and may therefore have a greater awareness of treatment options within these areas of practice.

The application of PAT for treatment resistant depression is the most famous as it was the landmark pilot study (12). The follow up study comparing psilocybin to escitalopram was the first double blind PAT study (13). The first phase 3 PAT study is also in the context of treatment resistant depression. There is a multitude of additional research on PAT for depression. A 2023 double blinded study showed a significant reduction in symptoms after a single administration of moderate dose psilocybin (34). A 2021 study looking at PAT for treatment resistant depression with a waiting list arm, included 15 active participants and 12 controls. The study showed efficacy but of note is that 3 patients did not complete the trial. (35). This area of application has the greatest

volume of research in modernity and can possibly explain the finding of participant awareness being greatest for the application in mood disorders.

Although participants had awareness on the applications of PAT in depression and anxiety disorders, only 32 (38.55%) of participants were aware of palliative care or end of life applications. This is surprising as the initial studies of PAT for both anxiety and depressive symptoms were within the context of terminal patients. The largest systematic review on anxiety symptoms includes 11 studies on end-of-life symptoms (36). An explanation for this may be that early studies were granted ethics approval on the basis of risk versus benefit ratios being in favour of PAT in the terminally ill population but not in the general population. These studies in palliative care established a proof of concept and safety profile that allowed PAT to be studied in specific disorders. The specific applications are more relevant to the practice profiles of our study population.

A personal or family history of schizophrenia and bipolar spectrum disorders are exclusion criteria for participation in PAT according to the safety guidelines of the Johns Hopkins institute and the FDA (8,26). One participant stated that they were aware of research in schizophrenia for PAT. The psychotomimetic property of psychedelics resulted in 1960s researchers studying psychedelics as a way to understand psychosis, but PAT has not been studied as a treatment option for psychosis.

The role for PAT in bipolar spectrum disorders was indicated by 10 (12.0%) participants and does indicate a lack of awareness of PAT contraindications in a minority of the study population.

Lived experience of self-administered psychedelics: a factor of awareness

Fifty-two percent of psychiatrists have had patients discuss psychedelics with them and 65% have had patients disclose use of psychedelics as a self-administered treatment. This is contrasted by the fact that only 13% of psychiatrists feel confident in their knowledge. It is anticipated that the substance will be reclassified and medically approved for a variety of psychiatric disorders (5). Psychiatrists will be the primary prescribers of PAT and therefore are expected to be at the forefront of its introduction, yet the data suggests a greater level of interest, awareness and use in the general population. Further research into the public's perceptions on psychedelics as a treatment is required.

Factors that influence prescribing habits

Factor: Adverse drug reactions

The current research showed that prescribers had more, and fundamentally different concerns when prescribing general psychiatric medication versus contemplating psychedelics. The study participants considered and afforded greater importance to more prescribing factors when considering PAT with 254 factors in total when considering PAT versus 165 general prescribing factors. The concern for drug safety and side effect profiles doubled when prescribing psychedelics. Psychedelics have been shown to have minimal adverse drug reactions and the side effects are transient in nature and no addictive properties have been reported (20). a was supported by a 2021 systematic review that included 10 papers on PAT and supported the conclusion that early evidence is in favour of safety for PAT (37).

The studies included in the literature review speak of the physiological side effects of psychedelics such as the transient headaches and nausea but there are also psychological risks to be considered. The PAT experience is associated with ego dissolution, which puts participants in a vulnerable position and requires complete trust of the therapist (39). In 2022 a study described a significant side effect of suicidality in participants (38).

PAT has been associated with participant enthusiasm and there are reports of patients encouraging the use of psychedelics to other lay persons and this advice can lead to inappropriate use and risk to the general population (39). The reviewed research that suggested safety had small sample populations and patients were intensively screened prior to acceptance, in order to reduce risks of psychosis (4). It is therefore understandable that respondents would be more cautious of side effects and drug safety when considering PAT.

Factor: Patient preference

“Patient preference” was the prescribing factor that showed the most substantial decrease in reported relative importance (Table 4). Psychedelics have gained popularity in popular culture with many celebrities and high-profile individuals endorsing their use. Psychiatrists need to be neutral and make decisions on evidence-based results and opportunistically educate patients on the research gaps (40).

Psychedelics are not legal in any capacity currently; should South Africa legalise the substance it would be as a prescription, either under research conditions or as a prescribed treatment, therefore it would remain illegal for recreational use. Patients are reporting self-administration and are placing themselves at risk of legal consequences. Patients may also request PAT with a secondary gain of procurement and illicit drug diversion (12).

Factor: ease of administration

The researchers had anticipated that the prescribing factor “ease of administration” would have been a greater consideration with PAT. PAT is not simply a drug that is prescribed and given but a psychedelic experience that last hours, in a dedicated private space and requires patient monitoring throughout; PAT is both labour and resource intensive. In addition, PAT has a therapy component both preceding and post administration of the psychedelic substance. The study participants did not reflect this concern as only 8 (9.6%) under general prescribing compared to 10 (12.1%) under psychedelic prescribing listed this as a most important concern.

Factor: professional acceptability

The importance of factors “professional acceptability” and “previous experience” doubled in relative importance when considering PAT. The respondents were asked to compare current prescribing considerations with a hypothetical prescribing choice of a substance that is not currently within the scope of practice to prescribe and includes a therapy component. The uncertainty around PAT resulted in the factor of acceptability amongst colleagues becoming relatively more important. The scarcity of information and lack of standardised treatment guidelines that protects clinicians have resulted in greater reliance on other external protective measures such as inter-profession cohesion.

Factor: training received on treatment during medical school

The importance of the factor, “training received on the treatment during medical school” increased by a factor of 2.5 when psychedelics were considered. This finding was expected as training has been described as the most important factor when choosing a treatment option and novel agents by definition are new and therefore clinician experience and comfort in prescribing is reduced (41).

The attitude of study participants regarding PAT

The results showed that study participants are interested in the novel treatment option of psychedelics. This was in-line with the Sussex study (28), where the themes of “optimism” and “openness” were expressed by psychiatrists. This result indicates a shift in attitude as a similar study on the awareness and attitudes of American psychiatrists in 2018 showed that less than a third of participants considered that classical psychedelics could have a role in mental illness (30).

Their interest may be explained by the fact that current treatment options are limited, and mental illness morbidity has increased over the past 50 years (22,42). The majority of the study population 37 (45%) of respondents reported hesitancy about psychedelics. The response is expected as PAT has only been studied in small sample size phase 1 and 2 studies. In addition, the prescribing of such treatments is currently illegal in South Africa, limiting access and experience.

Males were found to have statistically significant (p-value 0.02) lower rates of hesitancy reported than their female colleagues with regards to the implementation of PAT. This is supported by Barnett who showed male psychiatrists in America were more likely to report confidence in their prescribing habits (30).

Strengths and Limitations

The study is limited by the number of respondents. A larger scale study would provide more significant results. Online surveys typically gain a 25-30% response rate (43) and our study received a 23% response rate which is adequate but lower than hoped for and could have resulted in response bias. The respondents with an interest in psychedelics are more likely to respond to the survey (44). At the time of protocol construction in November 2021 the HPCSA was contacted, and they communicated that 977 psychiatrists were registered with the board. Only one third (336) of the psychiatrists in South Africa were on the SASOP database and this limits the generalisability of the study. The utilization of the SASOP database introduced selection bias and further limited generalisability.

A mixed methods approach would have provided further insight into the cause of the hesitancy described in the results.

The study was limited to a South African population and thus was limited in terms of reflecting the attitude and awareness of psychiatrists practicing outside South Africa. However, the similarity of the results in the United Kingdom and American studies have indicated a degree of reliability.

Conclusion

The results showed that study participants have an awareness of psychedelics but lack confidence in their training and knowledge on the topic. The attitude of the psychiatrists was that of interest in the topic with hesitancy regarding its implementation. The respondents had concerns about the drug safety and side effects.

There is still a great need for further research as the hesitancy described, is prudent and in keeping with the ethical and evidence-based framework of medical practice. Despite valid concerns, there is interest in the topic.

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Appendix A

Final protocol

Ethics approval

Assessors group approval

PROTOCOL

Describing the Awareness and Attitudes of South African Psychiatrists towards the
Implementation of Psychedelics as a Novel Treatment Option

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[Appendix A: Questionnaire](#)

[Appendix B: Ethics clearance](#)

[Appendix C: Informed consent and Participation Information Sheet](#)

Introduction

Psychedelics is a term that translates to mean the mind or soul manifesting (Aaronson, 1970). Other terms used are hallucinogens or Entheogens: which translates to: “the divine within” (45). This protocol will refer to psychedelics utilising the definition of a classical psychedelic which indicates that the substance is either a full or partial agonist of the serotonergic 5-HT 2A receptor that results in perceptual disturbances and an altered state of consciousness (Nichols, 2004; Johnson, 2019). Substances that fulfil this definition include LSD (Lysergic acid Diethylamide), psilocybin, mescaline and N, N-dimethyltryptamine (DMT).

Psychedelic drugs have been a part of healing rituals in many cultures for centuries due to their mind-altering properties. The use of the substances can be traced back to countries such as Mexico, Brazil, Peru, Ecuador, United States of America and Colombia (Garcia-Romeu, 2016; dos Santos, 2021). The interest in therapeutic application for psychedelics became prominent in the western scientific world in the 1940s after Swiss chemist Albert Hoffman first synthesised LSD-25 in 1938 (6). LSD was derived from a fungus ergot. Albert Hoffman later consumed an LSD dose as a self-experiment in 1943, a day that would later be renowned internationally as Bicycle Day (7).

The invention of LSD was studied by the psychiatric community as a breakthrough medication: until the mid-1960s more than two thousand clinical papers were written on psychedelic drug therapies and these studies included more than forty thousand patients (6,48). In addition, 6 international conferences were held on psychedelics (Grinspoon, 1979). Psychedelics were being used and explored as psychotomimetics, adjuncts to therapy and tools of self-discovery for therapists; early studies indicated that LSD

assisted therapy showed positive results for the treatment of anxiety, depression, obsessive compulsive disorder, addiction, and relieving pain associated with cancer (Sessa, 2005; Belouin, 2018).

In 1970 the USA passed the Controlled Substances Act. Under this act psychedelic substances were listed as schedule 1 (Belouin, 2018). Schedule 1 drugs were considered to have a high potential for abuse, have no medical application and were not accepted to be safe (Belouin, 2018). This decision was soon followed by the world at large. In 1971 the United Nations Convention on Psychotropic Substances placed global restrictions on psychedelic substances across 183 countries, effectively halting all legitimate research and progress in the field. 40 years later in 2014 the first pilot study on the safety and efficacy of LSD was done (Gasser, 2014). The categorisation of LSD and psychedelics as schedule 1 was stigmatising and led to an era of misinformation, politicization and a legacy of fear among the public that soon spread to medical and research fields (Belouin, 2018; Byock, 2018).

Psychedelic awareness is growing amongst the public and medical fields. It is anticipated that the substance will soon be reclassified and medically approved for a variety of psychiatric disorders (5). This prediction follows the reclassification of 2 other notable schedule 1 drugs namely cannabis and 3,4-methylenedioxymethamphetamine (MDMA), (Belouin, 2018). The emergence of medical cannabis has forced society and law makers to reconsider a variety of once restricted illicit drugs and question if the legal restriction is a true reflection of the substance's nature (Garcia-Romeu, 2016).

Literature Review

Psychedelics have been studied in small pilot and phase 1 studies as possible treatment options in many psychiatric disorders. Below are brief summaries of possible application

PAT for Major Depression Disorder

The pilot study for psychedelics for treatment resistant depression showed improvement in both the Beck Depression inventory and the quick inventory depressive symptoms. 67% of patients had complete remission suggesting that psychedelics have rapid acting and sustained therapeutic benefits (Carhart-Harris, 2016). The limitation of this study is a small sample population with only 12 participants, in addition the participants were self-referred and actively sought treatment with psychedelics therefore expectancy bias may have skewed results (Carhart-Harris, 2016).

Carhart-Harris 2021 conducted a double blinded phase 2 study comparing escitalopram and psilocybin in efficacy for treatment of depression. At 6 weeks follow up there was no significant difference in depression scores taken on the Quick Inventory of Depression symptomatology scale (Carhart-Harris, 2021). The study, more robustly designed than pilot studies, showed promise but not superiority to current available and approved treatments.

The medial prefrontal cortex is known to exhibit increased activation in patients with depression (Drevets, 2008). Psychedelics have shown a reduced amygdala response to negative stimuli (Kraehenmann, 2015).

PAT for Anxiety Spectrum Disorders

The first human trial of LSD in the 21st century explored the application for anxiety associated with life threatening illness. The study indicated that a single dose was

effective at lowering anxiety (77.8%) in participants and that the results were sustained at 12 month follow up (Gasser, 2014). The study had only 12 participants, the participants all of whom received psychotherapy sessions that were not substance assisted. The relative impact of intensive psychotherapy versus the PAT is unknown.

A pilot study on the application for OCD found significant symptom reduction (Moreno, 2006).

PAT for Substance Use Disorders

A 2014 study by Johnson indicated that 2 doses of psilocybin in combination with (CBT) for smoking cessation resulted in an 80% success rate at 6 months (Johnson, 2014). This study had a CBT only control arm improving the validity of the study, however the study had 15 participants of which 3 were lost to follow up.

Alcohol cessation had similar statistically significant results when motivational interviewing was combined with psilocybin assisted therapy. Abstinence was maintained at 36 weeks follow up in a study with only 10 participants (Bogenschutz, 2015).

Decreased substance use has been reported as an incidental finding in studies not designed to target substance use (Watts, 2017; Brecksems, 2020).

PAT for Personality alteration

Psychedelics elicit significant enduring changes to personality, specifically resulting in an increase in the openness domain (MacLean, 2011). It is of particular interest as it is the first laboratory manipulation of personality (Terracciano, 2005; Garcia-Romeu, 2016). The implications of altering personality chemically has not been explored.

Increased trait openness has been linked to increased risk-taking behaviour (Lauriola, 2001). Whether this finding may be considered a benefit or an adverse drug reaction remains unclear.

PAT for Palliative care and acceptance of terminal illness

Persons approaching the end of their lives seek to know that they have lived a meaningful life (Sadock, 2017). Many people facing terminal illness experience anxiety and depression. Terminal patients who were given psychedelic assisted therapy reported experiencing “enhanced recognition of the intrinsic meaning and value of life” (20) and an “expanded capacity for love and an intensified sense of connection” (20)

PAT for Eating Disorders

In 2020 PAT was used in 13 eating disorder patients. The results showed rapid decrease in eating disorder symptoms and the associated intrusive thoughts. Participants stated that they had accessed the root of their problem and felt great acceptance of their bodies and more self-love after the session (Renelli, 2020). This was a qualitative study that illustrates psychedelics as a potential therapeutic tool, but clearly states in the conclusion that further quantitative research is required.

PATfor Recidivism

A 2014 longitudinal study of 25,622 individuals under community corrections supervision who were using psychedelics at the time showed that there was a reduced likelihood of supervision failure (Hendricks, 2014). This study is limited in that it controlled for use of other substances, effectively eliminating 98% of the study population.

The safety of psychedelic use

Hallucinogen Persisting Perception Disorder (HPPD) is a disorder described in the Diagnostic Statistical Manual of Mental Disorders (DSM-5) and is the recurrence or re-experience of perceptual disturbances after cessation of hallucinogen agents that originally developed during intoxication (58).

HPPD occurs with a very low prevalence and is considered rare. Individuals who receive 10 or more doses are more likely to report side-effects (McGlothlin, 1971; Garcia-Romeu, 2016). The prevalence is greater amongst individuals using the substance recreationally: this difference is believed to be a result of careful screening in therapeutic settings (Garcia-Romeu, 2016).

In the 1960s when psychedelics were at their peak of interest more than 40,000 patients partook in studies that showed a high level of safety and few side effects (6). A 2015 population study failed to find evidence of a link between psychedelic use and admissions for mental health intervention, the study found no link with suicidal ideation and attempts (Johansen, 2015). Psychedelic use is in fact associated with lower rates of mental health problems (Krebs, 2013) and decreased suicidality (suicidal ideation as well as attempt) (Hendricks, 2015). The Krebs, (2013) and Johansen, (2015) studies were limited as they controlled for comorbid substance use, age, sex, and income. There were also many uncounted for variables. These population studies show correlation but not causation.

The classic side effect profile of psychedelics include transient nausea and vomiting, transient headache, transient disorientation, transient anxiety and sympathetic nervous system arousal (Carhart-Harris, 2016; Byock, 2018). Serious adverse events are extremely rare (Carhart-Harris, 2016). Psychedelics can lead to serious complications in users with vascular problems, the 5-HT_{2A} receptor agonism is associated with vascular smooth muscle contraction, platelet aggregation and thrombus formation (Nichols,

2016).The substance lacks the physiological properties to cause addiction (Johansen, 2015).

It is important to note that the substance has shown safety in controlled safe environments, with screened participants conducted by trained practitioners and not as a recreational drug. The mental state of the patient: personality, suggestibility, preparation, mood and psychopathology are assessed. This is referred to as the “set”. PAT takes place in aesthetic environment termed “the setting” (Garcia-Romeu, 2016; Hartogsohn, 2016; Brecksema, 2020). The Johns Hopkins group created guidelines for safety in Human Hallucinogen research that describes in detail the optimal set and setting (Johnson, 2008).

Factors associated with re-emergence and interest of psychedelics in psychiatry

Limited treatment options

Mental illness prevalence has increased globally in the past decade (Vigo, 2016). The established treatment options remain insufficiently effective and limited resulting in an increase of years lived with disability (YLDs). It is time therefore, to revisit the option for legitimate use of psychedelics in therapy (Whitaker, 2005; Byock, 2018)

Currently used neuroleptic drugs have burdensome side effect profiles, require long term to chronic use and have polypharmacy interaction (20). Psychedelics offer an option that is fast acting and effective: a single dose assisted psychotherapy session has demonstrated reduced symptomology that remains in remission for more than one year (Belouin, 2018). Psychedelics have no tissue toxicity, few drug-drug interactions and have been proven to be safe, making them an attractive alternative option (Byock, 2018).

Increasing Patient awareness and enthusiasm

The topic of psychedelics is currently gaining momentum in popular culture. In the USA approximately 32 million individuals have consumed psychedelics (Krebs, 2013). Patients are actively seeking psilocybin options, stating that it is more effective, more efficient, and “it’s getting to the root cause” (Watts, 2017; Renelli, 2020).

Psychedelics have a role in mental health promotion

Mental health is more than the mere absence of illness, it is a state of emotional, psychological and social well-being that enhances the individual’s ability to handle stressors, realise one’s own abilities and contribute to society (63). Psychedelics have shown a lasting increase in quality of life (Gasser, 2015), increased patient insight (Bogenschutz, 2012; Brecksema, 2020) encourage unity and a sense of belonging

(Breeksema, 2020), add meaning and awe to life (Doblin, 1991; Breeksema, 2020), expand emotional spectrum (Breeksema, 2020), increase creativity and imagination (Carhart-Harris, 2015), and a heightened response to music (Garcia-Romeu, 2016).

Prescribing behaviours of clinicians

There is a scarcity of research on the topic of attitudes of psychiatrists towards implementation of psychedelics. The search net was extended to all clinicians and psychologists with regards to novel treatments and further extended to factors affecting prescriber habits. Denig (1988), created a formula to determine the importance of several factors of prescriber drug choice and it was determined that professional acceptability/ the opinion of professional colleagues and previous experience, had the greatest influence on choice. Efficacy was considered to be more influential than adverse effect profiles and patient demand had a negligible effect (Denig, 1988). Clinician experience of prescribing treatment during clinical internship and medical school training are subjectively reported as the most important factors affecting prescriber behaviour by family physicians (Calikoglu, 2019).

Nielson (2018), discussed the need for research on how first-hand experience with psychedelics influences therapy with hallucinogens: PAT is an unprecedented blend of pharmacological and psychotherapeutic approaches. It has been established that personal experience and clinician specific extra pharmacological factors influence treatment outcomes (Green, 2014; Nielson, 2018). Hyde (1960), found measurable increases in negative effects of LSD when therapy was conducted by staff who were hesitant and less friendly: (this study does not meet current empirical research standards but does illustrate the need for further research on prescriber attitudes. Currently there is a lack of knowledge amongst psychiatrists regarding psychedelics (6) Training on psychedelics is limited and typically taught under the heading of substance abuse.

In summary mental health disorders are a leading cause of disability and treatment options remain limited. Psychedelics are gaining momentum in research and have offered promising results in a variety of mental health disorders and have been shown to be relatively safe. As clinicians we have a duty to our patients to offer them the best possible treatment. The question remains, whether psychedelics truly are breakthrough emergent drugs or are there barriers to the use that have not been articulated in the literature. The intention of this proposed study is to examine the current attitudes that exist amongst South African psychiatrists to the implementation of PAT.

Study Objectives

The Aim of this study is therefore to explore and describe the awareness, knowledge, attitudes, concerns, and objections that practicing South African Psychiatrists have toward the topic of PAT.

1. To determine the demographics of study population.
2. To measure the awareness and knowledge of PAT amongst South African Psychiatrists.

3. To determine which factors that were outlined in the literature review mainly efficacy, safety, side effect profile, affordability, accessibility, acceptability amongst colleagues, previous prescribing habits, patient preference and previous training (Denig, 1988; Calikoglu, 2019) are most important to prescribers' choice.
4. To determine the current attitudes of South African Psychiatrists towards Psychedelics.
5. To compare the determined attitudes, awareness and knowledge with the socio-demographic data across the study population.

Hypothesis

The hypothesis of this study is that the awareness on psychedelics will be low amongst South African psychiatrists. The study further hypothesises that safety concerns and lack of prior experience with regards to prescribing psychedelics will be factors that influence hesitancy. It is hypothesised that awareness will be higher amongst junior psychiatrists, psychiatrists who have had international experience and psychiatrists who have an interest in substance use disorders.

Methods

This study will be a cross sectional online survey by design. Inquiry into understanding the attitudes and perceptions of South African Psychiatrists regarding the implementation of PAT will be undertaken by means of a self-administered on-line questionnaire. The sample population was decided upon, as psychiatrists are responsible for treatment decisions in mental health patients. Psychiatrists would be the population responsible for the prescription of psychedelics, should they be implemented in South

African treatment guidelines and thus their opinions and attitudes are invaluable to the study.

Population

The population is psychiatrists registered with the HPCSA in South Africa both from the public and private sector. The HPCSA was contacted and as of 2 November 2021: 977 psychiatrists had active registration with the governing body. The participants will be identified from the SASOP (South African Society of Psychiatrists) data base. SASOP data base is linked to both practicing and non-practicing psychiatrists.

Sampling method

Probability random sampling will be employed in this study. Random sampling is defined as a method whereby all individuals of a study population have an equal probability of being selected. This sampling method has the advantage of being easily analysed and is considered to have good external and internal validity. (Acharya, 2013). The study is making use of a sampling frame (a closed targeted group of participants) (Tanner, 2018) by inviting all registered psychiatrists in South Africa on the SASOP database to participate anonymously. All individuals have an equal probability to respond. A Wits Statistician calculated that with an estimated average response rate of 30% to an online questionnaires the study would require a sample size of 112 respondents to have an 80% confidence Level for a design effect of 1. The confidence level would go up to 99% should the questionnaire receive 265 respondents.

Inclusion criteria

- Psychiatrists Registered in South Africa

- English language understanding
- Consent given

Exclusion criteria

- Psychiatrists directly or indirectly involved in the supervision of this research paper

Data Collection

Psychiatrists will be sent emails with links to an online survey questionnaire. The survey has been designed using Microsoft Forms which is easy to use and complies with the international General Data Protection Regulation of 2018. The captured data is then uploaded into Microsoft Excel for data analysis.

The questionnaire has been designed to incorporate, binary, nominal and ordinal data points. The questionnaire is researcher designed and generated. The questions are designed with face value and construct validity measures. The literature review has highlighted factors proven to affect prescriber attitudes: previous prescription during training, teaching received during training, efficacy, side effect profile, cost, patient preference and stigma (Denig, 1988; Calikoglu, 2019). These factors are directly asked in the questionnaire.

2-3 pilot questionnaires will be completed by volunteers, prior to data collection to assess the proposed questionnaire and will be adjusted accordingly.

Data collection will be terminated when response numbers required for clinical significance have been reached.

Data Analysis

Statistical analysis will be conducted by the researcher with assistance where necessary from the Wits Statisticians available to the department. A data model will be constructed in power BI and the corresponding data will be imported into the model in order to produce an interpretable output which will be expressed in the form of tables and graphs. Explanatory text will be added to the output to assist with interpretation.

Objective 1: The socio-demographic data will be calculated as a frequency and represented in pie charts.

Objective 2: 4 Questions with Likert scale ratings, will be analysed and expressed as a percentage of total respondents. This is best represented in a bar chart. The Mann-Whitney U test will be used to test the null hypothesis.

Objective 3: 11 Questions with Likert scale ratings will be posed and the answers will be expressed as percentages of total respondents per question. The result of each question set will be compared to the rest of the questions in order to establish the most important factors. The most important factor will be determined by interpreting the highest frequency of the option selected per question in comparison to the question set.

Objective 4: 3 Questions with Likert scale ratings will be analysed as a Median of most frequent responses. The Mann-Whitney U test will be used to test the null hypothesis.

Objective 5: The socio-demographic features will be compared to the self-reported attitudes toward psychedelics in order to establish correlation. A chi-square test will be used to establish significance: a p-value of 0.05 will be considered significant.

Ethics

The University of the Witwatersrand's ethics board, the WITS Human Research Ethics Committee- Medical branch, will be approached for ethical clearance.

Informed consent from all participants will be obtained in writing prior to accessing the online questionnaire.

All participants will remain anonymous with randomly assigned computer generated codes that will be encrypted at rest and in transit.

Confidentiality will be maintained, and protection of personal information will strictly adhere to regulations outlined in the South African PoPI Act, 2013, as amended, July 2021.

Timing

	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Literature Review													2021
Protocol Preparation													2021
Protocol Assessment													2021
Ethics approval													2021
Data Collection													2022
Data Analysis													2022
Thesis Write up													2023

Funding

Funding will be required for: skills workshops and printing and photocopying relevant documentation. The research will be funded by the researcher Dr C. Herold.

Expense	Cost in Rands
Courses	R1 500
Introduction to Questionnaire design	
Data Management workshop	
Data Analysis workshop	
Scientific writing skills workshop	
Ethics	
Printing (1 cartridge)	R1 300
Total	R6 100

Limitations

This study design has the limitation of being open to auto selection bias or self-selection bias (dell'Olio, 2018). Participants may not be a true representation of the population of South African psychiatrists as individuals who are more interested and motivated to participate will be overrepresented, conversely individuals who are uninterested in the topic may be underrepresented by the study. The concern with self-selection bias is the difficulty in extrapolating the data results to the general population (Tanner, 2018). Selection Bias is another limitation identified in this study, as participation requires access to internet and a smart device such as a cell phone or computer. The study limits access to certain participants namely those individuals who are not computer literate or who reside in areas that have connectivity difficulties (Tanner, 2018).

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Appendix A. 1: Ethics Approval

UNIVERSITY OF THE
WITWATERSRAND
JOHANNESBURG



R49 Dr CR Herold

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
CLEARANCE CERTIFICATE NO. M220245

NAME: Dr CR Herold
(Principal Investigator)

DEPARTMENT: School of Clinical Medicine
Department of Psychiatry
Medical School
University

PROJECT TITLE: Describing the awareness and attitudes of South African psychiatrists towards the implementation of Psychedelics as a novel treatment option

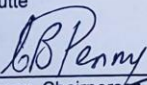
DATE CONSIDERED: 2022/02/25

DECISION: Approved unconditionally

CONDITIONS:

NOTE: If contact information regarding student study participants is required, please contact the Registrar's office - <Nicoleen.Potgieter@wits.ac.za>

SUPERVISOR: Dr T Schutte

APPROVED BY: 
Dr CB Penny, Chairperson, HREC (Medical)

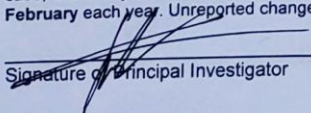
DATE OF APPROVAL: 2022/06/06

This Clearance Certificate is valid for 5 years from the date of approval. An extension may be applied for.

DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Research Office secretariat on the 3rd floor, Phillip Tobias Building, Parktown, University of the Witwatersrand, Johannesburg.

I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated from the research protocol as approved, I/we undertake to submit details to the Committee. **I agree to submit a yearly progress report.** When a funder requires annual re-certification, the application date will be one year after the date when the study was initially reviewed. In this case, the study was initially reviewed in **February** and therefore reports and re-certification will be due in the month of **February** each year. Unreported changes to the study may invalidate the clearance given by the HREC (Medical).

 Signature of Principal Investigator

9/6/2022
Date

Appendix A. 2: Assessor's group Approval



8 April 2022

Chairperson Ethics Committee

Prof C Penny

C/O Mr Rhulani Mkansi

Administrative Officer HREC

**RE: APPROVAL OF PROTOCOL – Dr. C Herold Student
No. 608366**

This serves to confirm that the MMed research protocol of the abovementioned candidate was approved by the assessor group committee to the satisfaction of both supervisors and the Chair of the Psychiatry Research Assessor Group.

Yours sincerely

A handwritten signature in black ink, appearing to be 'C. Smith', written over a horizontal line.

Professor C Smith

Chairperson

Assessor Group Meeting

Appendix B

Turn it in

turn it in version-1.docx

ORIGINALITY REPORT

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psychedelic-assisted therapy among social workers, psychiatrists, and psychologists in the United States", Journal of Psychedelic Studies, 2023

Publication

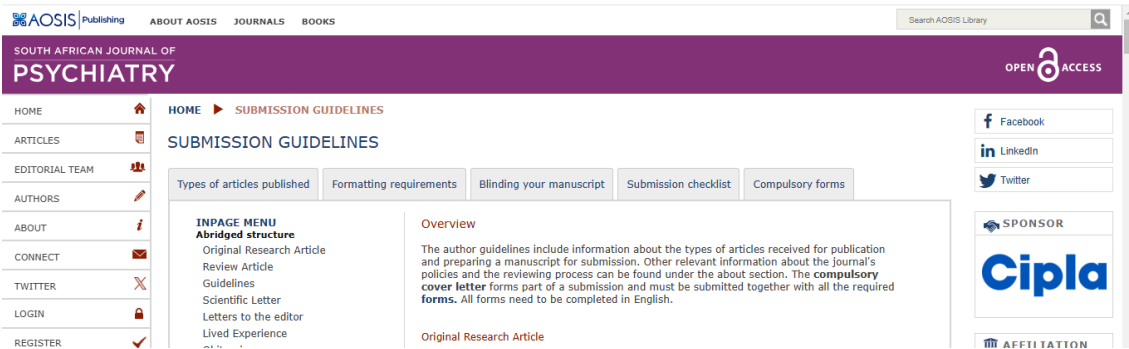
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Appendix C



Overview

The author guidelines include information about the types of articles received for publication and preparing a manuscript for submission. Other relevant information about the journal's policies and the reviewing process can be found under the about section. The **compulsory cover letter** forms part of a submission and must be submitted together with all the required [forms](#). All forms need to be completed in English.

Original Research Article

An original article provides an overview of innovative research in a particular field within or related to the focus and scope of the journal, presented according to a clear and well-structured format. Systematic reviews should follow the same basic structure as other original research articles. The aim and objectives should focus on a clinical question that will be addressed in the review. The methods section should describe in detail the search strategy, criteria used to select or reject articles, attempts made to obtain all important and relevant studies and deal with publication bias (including grey and unpublished literature), and how the quality of included studies was appraised, the methodology used to extract and/or analyse data. Results should describe the homogeneity of the different findings, and clearly present the overall results and any meta-analysis.

Submission status	open
Word limit	3000-4000 words (<u>excluding</u> the abstract, tables, figures, graphs, and references)

Abstract	maximum: 250 words requires structural headings: Background, Aim, Setting, Methods, Results, Conclusion and Contribution
Main text	requires structural headings, refer to the full structure 'Ethical considerations' is a sub-section in the manuscript and must include: • Name of the ethical review committee • Study approval number • Manner of consent (written, oral) for human participants • Description of measures taken to maintain the confidentiality of data • If the study was not human or animal research or the study was determined to be non-human subjects research or exempt, the authors must provide a statement with those details in this section.
References	60 or less, adhere to the Vancouver referencing style
Tables, figures and graphs	7 or less, adhere to the Illustrations requirements found in the AOSIS House style guide
Formatting requirements	apply the guidelines located on the Formatting requirements page and the AOSIS house style guide
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