

**AYURVEDA AS A MODEL OF INTERVENTION IN TREATING
SUBSTANCE USE DISORDERS IN ADULTS:
A SYSTEMATIC REVIEW**

**A thesis submitted in fulfilment of the requirements for the degree of
Master of Social Work in the Department of Social Work, Community and
Health Sciences Faculty, University of the Western Cape.**



Student Name: Karusha Pather

Student Number: 3516856

**UNIVERSITY *of the*
WESTERN CAPE**

Supervisor: Dr Shernaaz Carelse

December 2024

PLAGIARISM DECLARATION

I, Karusha Pather, student number 3516856, hereby declare that the thesis titled " Ayurveda as a model of intervention in treating substance use disorders in adults: A systematic review" submitted to The University of the Western Cape for the degree of Masters in Social Work is my own original work. I affirm that this work has not been submitted for any other degree or qualification at any other institution.

I acknowledge that I have adhered to the academic integrity policies of The University of the Western Cape and have properly cited all sources and references used in the preparation of this thesis. I understand that plagiarism, which includes the use of another person's work, ideas, or expressions without proper acknowledgment, is a serious academic offense and can result in disciplinary action.

I confirm that I have taken all necessary precautions to ensure that my work is free from plagiarism and that I have sought guidance where necessary to maintain the integrity of my research.

Signed,

A handwritten signature in black ink, appearing to be 'Karusha Pather', written in a cursive style.

Karusha Pather

3516856

ACKNOWLEDGEMENTS

I would like to express my heartfelt gratitude to all those who have supported me throughout the journey of completing this thesis.

First and foremost, I would like to thank my supervisor, Dr Shernaaz Carelse, for her invaluable guidance, encouragement, and expertise. Your insights and constructive feedback have been instrumental in shaping my research and enhancing my understanding of the integration of Ayurvedic practices within the context of substance use disorders.

I am also grateful to the faculty and staff at The University of the Western Cape for providing a supportive academic environment and for their assistance throughout my studies.

This research has been a deeply personal exploration of my cultural heritage and its relevance in contemporary treatment methodologies. I would like to acknowledge the rich traditions and wisdom of my culture that have inspired me to explore holistic approaches to healing. The teachings of Ayurveda have not only shaped my academic pursuits but have also enriched my understanding of the complexities of human experience and recovery.

I extend my appreciation to the authors of the existing literature which encouraged scholastic support. Their contributions to literature have illuminated the importance of cultural competence in treatment and have reinforced my commitment to integrating diverse healing practices.

Lastly, I would like to thank my family for their unwavering support and belief in me. Your love and encouragement have been my greatest source of strength, and your cultural values have instilled in me the importance of compassion and understanding in the field of social work.

Thank you all for being a part of this journey.

ABSTRACT

Western modalities are dominating treatment for substance use disorder (SUD) while alternative modalities are secondary and or use in conjunction with western modalities. Ayurveda is one such alternative holistic model that have been used in treating adults with a SUD. However, this ancient model is not well known in the social work fraternity and therefore requires exploration in terms of its effective use for treating SUDs in adults. This qualitative systematic review (SR) investigated existing literature on the issue with the aim to identify the effective use of Ayurveda as an intervention model in social work for treating adults with a SUD. The aim therefore was to identify the methods used in Ayurveda for treating adults with a SUD.

The ethics of care as proposed by Joan Tronto was used to contextualise the study and the findings. Research studies conducted between 2012-2023, in English, in which qualitative, quantitative and mixed methods approaches were used were selected, using search terms related to the use of Ayurveda as a model for treating adults with a SUD. Selected texts were evaluated for quality using the open access RE-AIM critical appraisal tool and an adapted version of the PRISMA flow chart as proposed by Page et al. (2021) were used to display the results obtained through the appraisal process. Thematic data analysis as proposed by Braun and Clark (2006) was used and trustworthiness were ensured by conferring a second reviewer regarding the SR process and authenticity of the findings. Ethics approval to conduct the study was obtained from the Humanities and Social Sciences Research Ethics Committee (HSSREC) at UWC where the researcher is registered for the Master of Social Work degree.

The findings indicate that Ayurveda is a suitable model for treating SUDs either as a specialisation or as a complimentary model to Western modalities. The findings highlight the implications for clinical practice and calls attention to the need for healthcare providers and practitioners to adopt a holistic approach that recognises the connection of physical, mental, and social well-being of adults with a SUD. Emanating from the findings, recommendations are made for social work practice and policy in the field of SUDs.

Addiction, Ayurveda, Ethics of Care, Social Work, Systematic Review

DEFINITION OF KEY TERMS

Addiction: A complex condition marked by compulsive behavior and dependence on substances or activities, leading to negative consequences (Karim & Chaudri, 2012).

Ayurveda: An ancient and holistic Indian system of medicine that emphasizes balance among the mind, body, and spirit, using natural remedies and holistic practices for health and healing (Ketabi, 2017).

CIWA-AR scale: The Clinical Institute Withdrawal Assessment for Alcohol, Revised. A tool used to assess the severity of alcohol withdrawal symptoms within detoxification (Sullivan et al., 1989).

Ethics of Care: A moral framework that emphasizes the importance of interpersonal relationships and the responsibilities of care-givers towards care-receivers, focusing on attentiveness, responsibility, competence, and responsiveness in care practices (Tronto, 1993).

Social Work: A professional field that aims to enhance individual and community well-being by addressing social issues, providing support, and facilitating access to resources through various interventions and advocacy (Stanger & Weber, 2018).

Substance Use Disorder: A medical condition characterized by an individual's inability to control their use of substances, leading to significant impairment or distress, and is often associated with compulsive behaviour, tolerance, and withdrawal symptoms (Sussman & Sussman, 2011).

Systematic Review: A research method that involves a structured and comprehensive synthesis of existing studies on a specific topic, aiming to identify, evaluate, and summarize all relevant evidence in a transparent and reproducible manner, often following established guidelines such as PRISMA (Moher et al., 2015).

LIST OF ACRONYMS

CBT	Cognitive Behavioural Therapy
CIWA-AR	Clinical Institute Withdrawal Assessment for Alcohol
DBT	Dialectical Behavioural Therapy
NASW	National Association of Social Workers
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
RCT	Randomized Controlled Trial
REBT	Rational Emotive Behavioural Therapy
SUD	Substance Use Disorder
SUDs	Substance Use Disorders
SR	Systematic Review
SACENDU	South African Community Epidemiology Network on Drug Use

Contents

PLAGIARISM DECLARATION	i
ACKNOWLEDGEMENTS.....	ii
ABSTRACT	iii
DEFINITION OF KEY TERMS.....	iv
LIST OF ACRONYMS.....	v
CHAPTER ONE	1
OVERVIEW.....	1
1.1 Introduction	1
1.2 Background and Rationale	2
1.3 Problem Statement and Significance of the Study	3
1.4 Theoretical Framework	4
1.5 Systematic Review	6
1.6 Research Aim and Objectives	8
1.7 Thesis Layout.....	9
CHAPTER TWO	10
LITERATURE REVIEW.....	10
2.1 Introduction	10
2.2 Substance Use Disorders.....	10
2.2.1 Levels of Substance Use.....	11
Figure 2.1 The Cycle of Addiction.....	14
2.2.2 Effects of substance abuse on the user	16
2.3 Social Work Theories.....	18
2.3.1 Social work intervention aimed at SUDs	21
2.3.2 Treatment models in social work practice.....	23
2.3.3 Types of treatment for SUDs.....	26
2.3.4 Intervention techniques for SUDs	27
2.4 Ayurveda as a Model in Social Work Intervention for SUDs.....	28
2.4.1 Origins of Ayurveda.....	28
2.4.2 Principles underlying Ayurveda Philosophy	30
2.4.3 Ayurveda for treatment of SUDs.....	34
2.4.4 Techniques used in Ayurveda in treating SUDs.....	36
2.4.5 Criticisms against Ayurveda philosophy	37
2.4.6 Merits for selecting Ayurveda as a treatment model for SUDs in Social Work.....	38
2.5 Theoretical Framework	39
2.5.1 Dimensions of the ethics of care	40

Figure 2.2 Tronto’s Five Dimensions of Care.....	40
2.5.2 Application of the ethics of care and Ayurveda for treatment of SUDs.....	47
2.5.2.1 Case Study: Managing Alcohol Use Disorder in a Young Adult.....	47
2.5.2.2 Applying the Dimensions of Ethics of Care.....	47
Figure 2.3 Application of the Dimensions of the Ethics of Care to the Case Study.....	48
CARE RECEIVING.....	48
CARING ABOUT.....	48
CARING WITH.....	48
CARE GIVING.....	48
CARING FOR.....	48
Source: Researcher’s design adapted from Tronto (2013).....	48
2.5.2.3 Applying Ayurveda as a Treatment Model for SUD.....	50
2.6 Conclusion.....	52
CHAPTER THREE.....	54
SYSTEMATIC REVIEW.....	54
3.1 Introduction.....	54
3.2 Research Paradigm.....	54
3.3 Research Methodology.....	55
3.4 Definition of A Systematic Review (SR).....	58
3.5 Rationale for Adopting a Systematic Review (SR).....	59
3.5.1 Minimisation of bias.....	60
3.5.2 Comprehensive evidence integration.....	60
3.5.3 Guiding clinical practice.....	61
3.5.4 Facilitating research transparency and reproducibility.....	61
3.5.5 Addressing research gaps.....	62
3.5.6 Providing a framework for meta-analysis.....	62
3.6 Important Features of a Systematic Review.....	63
3.6.1 Clearly formulated research question(s).....	64
3.6.2 Comprehensive literature search.....	64
3.6.3 Study selection process.....	64
3.6.4 Assessment of study quality.....	65
3.6.5 Data extraction and synthesis.....	66
3.6.6 Transparent reporting.....	66
3.6.7 Consideration of heterogeneity.....	67
3.6.8 Updating and addressing limitations in reviews.....	68
3.6.9 Conclusion and implications for practice.....	69
3.7 The Process Facilitated in this SRs.....	69

Figure 3.1 SR Protocol - Roadmap for the Current SR	70
3.7.1 Formulation of the review questions	71
3.7.2 Check for existing review on the topic	72
3.7.3 Write the review protocol	73
3.7.4 Search Strategy	75
Figure 3.2 PRISMA Flow Diagram	76
3.7.4.1 Search key data bases	77
Table 3.1 Data Bases, Dates Searched and Search Terms	77
3.7.4.2 Export and duplicate	78
3.7.5 Screening process	79
3.7.5.1 Screen abstract against protocol	79
Table 3.2 Summary of the Selected Studies	81
3.7.5.2 Obtain and screen full text of relevant studies against protocol	83
3.7.6 Study quality assessment	84
3.7.7 Citation searching from included studies	84
3.7.8 Critical appraisal/Quality assessment	85
3.7.9 Extract and analyse data	85
Table 3.3 Types of Study Reviewed	87
3.7.10 Meta-analysis/Meta synthesis	92
3.7.11 Write up results	93
3.7.12 Reporting and Publishing the findings of the SR	94
3.8 Conclusion	95
CHAPTER FOUR	98
RESEARCH FINDINGS	98
4.1 Introduction	98
4.2 Discussion of the Results and Analysis	99
4.3 Overview of Studies Publication Year	101
Table 4.1 Year-wise distribution of selected studies	101
4.4 Units of Analysis	104
Table 4.2 List of Articles included in the Final Sample	106
Table 4.3 Themes and sub-themes	107
4.5 Discussion of the Unit of Analysis	108
4.6 Discussion of the Findings in Relation to the RQs	110
RQ1: What prevention methods are used in Ayurveda in addressing SUDs in adults?	110
RQ2: What are the assessment methods used in Ayurveda in the diagnosis of adults with a SUD?	112
RQ3: What early intervention methods are used in Ayurveda in addressing SUDs in adults?	114

RQ4: What intervention methods are used in Ayurveda in the treatment of adults with a SUD?.....	117
RQ5: What methods are used in Ayurveda in terms of the ongoing/after care of adults with a SUD?	120
4.7 Limitations and Validity Threats.....	122
4.8 Conclusion.....	123
CHAPTER FIVE	126
CONCLUSIONS AND RECOMMENDATIONS	126
5.1 Introduction	126
5.2 Conclusions on Chapters 1-4.....	127
5.5 Summary and Conclusions Relating to the Main Themes.....	133
5.5.1Theme 1 Prevention Methods.....	133
5.5.2Theme 2 Assessment Methods	135
5.5.3Theme 3 Early Intervention Methods.....	136
5.5.4Theme 4 Intervention Methods	137
5.5.5Theme 5 Ongoing Care / After Care	138
5.6 Conclusions Relating to the Achievement of the Aim and Objectives.....	139
Table 5.2 Achievement of the Aims and Objectives of the Study.....	140
5.7 Reflexivity	141
5.8 Limitations of The Study.....	143
5.9 Recommendations	145
5.9.1Recommendations for social work.....	145
5.9.2Recommendations for policy relating to treatment of SUDs.....	147
5.9.3Recommendations for future research relating to SUD treatment.....	148
5.10 Conclusion.....	150
5.11 Final Conclusion.....	151
REFERENCE LIST.....	155
Annexure A: Studies Identified and Screened.....	165
Annexure D - List of Questions to Appraise Studies	172
Annexure E.....	173
Faculty of Community and Health Sciences HSSREC Reference Number: HS22/8/24.....	173
Approval Period: 29 September 2022 – 28 September 2025	173
Searching for just the right words – writing what is upright and true.	174

List of Figures

Figure 2.1 The Cycle of Addiction.....	14
Figure 2.2 Tronto’s Five Dimensions of Care	40
Figure 2.3 Application of the Dimensions of the Ethics of Care to the Case Study	48
Figure 3.1 SR Protocol – Roadmap for the Current SR.....	70
Figure 3.2 PRISMA Flow Diagram.....	76

List of Tables

Table 3.1 Data Bases, Dates and Search Terms	77
Table 3.2 Summary of Selected Studies.....	81
Table 3.3 Types of Studies Reviewed	87
Table 3.4 Data Extraction Tool	89
Table 4.1 Year-Wise Distribution of Selected Studies	101
Table 4.2 List of Studies Included in the Final Sample.....	106
Table 4.3 Themes and Subthemes	107
Table 5.1 Conclusions Relating to the Ethics of Care as Theoretical Framework.....	130
Table 5.2 Achievement of the Aim and Objectives of the Study.....	140

List of Annexures

Annexure A: Studies Identified and Screened	
Annexure B: RE-AIM Appraisal Tool	
Annexure C: Methodological Quality of Studies	
Annexure D: List of Questions to Appraise Studies	
Annexure E: Ethics Approval Letter	
Annexure F: Editor’s Letter	
Annexure G: Turn-It-In Report	

CHAPTER ONE

OVERVIEW

1.1 Introduction

Substance Use Disorder (SUD) is a worldwide phenomenon. South Africa has a rapidly increasing SUD rate and ranks globally among the top ten countries that have a high prevalence of SUD (South African Community Epidemiology Network on Drug Use [SACENDU], 2023). The most common substances being used and abused in South Africa are alcohol, opioids, cannabis, nicotine, methamphetamine and cocaine, all of which have negatively impacted many individuals, families and communities (SACENDU, 2023).

Despite the demand for SUD treatment in South Africa, access to treatment remains low. Westernised modalities dominate existing literature in terms of SUD treatment and there is a gap in alternative treatment approaches to substance use disorders (SUDs). Additionally, in the evolution of holistic treatment approaches, there is a gap regarding the use of homeopathy, such as Ayurveda, as an independent modality. The use of Ayurveda as an alternative and holistic approach to SUD has increased the effectiveness of treatment in terms of emotional, physical, social and spiritual wellbeing (Talcherkar, 2018). Also, Ayurvedic treatment focuses holistically on the prevention of disease using natural minerals and rehabilitative coping mechanisms (Modir & Munoz, 2018). However, the lack of alternative holistic approaches in treating SUDs, and in social work practice particularly, remains a concern (Talcherkar, 2018). This gap in treatment options for SUDs requires exploration. Thus, the aim of this study was to conduct a systematic review (SR) to identify the intervention methods used in Ayurveda as a model for treating SUDs in adults.

1.2 Background and Rationale

Western modalities have dominated SUD treatment both in-patient and out-patient services (Halpern, 2016). These modalities include treatment services such as detoxification with the use of Western medicine, psychotherapy, psychiatry, 12-step programmes, group and individual therapy, the use of various therapeutic systems such as Cognitive Behavioural Therapy (CBT), Dialectical Behavioural Therapy (DBT), Rational Emotive Behavioural Therapy (REBT) and aversion therapy (Marsh et al., 2015). However, the use of indigenous modalities has increased in various parts of the world but have either been appropriated or used in conjunction with Western modalities which often diminish the impact of a holistic approach (Marsh et al., 2015). The use of Ayurveda in SUD, for example, enables those in treatment to utilise a more holistic approach towards treatment and wellbeing since it constructs the condition (such as SUD) and highlights the importance of constitutional balance to alleviate the condition (Talcherkar, 2018). Furthermore, Ayurveda describes SUD as a displacement of innate doshic (energy) constitutions and enables a more harmonious state of behaviour without the influence of medication, and instead uses therapy and the maintenance of a constitutional equilibrium towards health and well-being. Additionally, it also enables more restorative approaches such as yoga, de-addiction treatments in detoxification and purifying therapies such as breathing techniques, meditation and herbal oils (Talcherkar, 2018). This model embraces a more inner person-centred therapy and extrinsic life- force energy, as stated by Talcherkar (2018), which could be innovative in the treatment of SUDs. These treatment techniques for SUD may make the use of Ayurveda more feasible.

The use of holistic treatment such as spirituality practices, yoga, meditation, acupuncture, physical exercise and importance of nutrition is not new in health

and wellness intervention; however, there are very few who use Ayurveda. Its use is superficial and only some aspects of this practice are used (Marsh et al., 2015). This selective use of the model inhibits full effectiveness of its use and does not enable the essence of the practice to be fully grasped and understood due to the selectivity and reinforcement of Western modalities within the holistic treatment. Talcherkar (2018) identified the gap regarding Ayurveda in SUD treatment. The selective use is in essence the rationale why the study is required and why exploration is needed. This research will contribute towards existing treatment methods by exploring the use of Ayurveda as an intervention model for adults with a SUD, and from a social work perspective.

1.3 Problem Statement and Significance of the Study

As a model used in maintaining health and well-being, Ayurveda may be used as a method for treating SUD as it emphasises therapeutic measures as opposed to an over-reliance on medicinal treatment (Talcherkar, 2018). In this sense, Ayurveda is particularly beneficial as it aims to understand the body and the nature of the illness (Jayasundar, 2010). In social work, Ayurveda is a micro-level intervention which may be used within the task-centred approach. As a task-centred approach Ayurveda enables social workers to explore goal attainment and significant roles and tasks with clients with addiction problems, including diet changes, lifestyle changes and routine and spiritual energy alignment (Talcherkar, 2018).

While many addiction services use holistic treatment modalities (spirituality practices, yoga, meditation) there remains a skepticism to use them as an all-inclusive treatment. Instead, only certain components of Ayurveda are appropriated in treatment practices (Marsh et al., 2015). Furthermore, despite its usefulness in treating addictions, this practice of Indian indigenous

ayurvedic methods declined due to traditions being forgotten and Western medicine becoming predominant in society (Jayasundar, 2010). The selective use of Ayurveda inhibits its efficacy (Talcherkar, 2018). The selective and declining use of Ayurveda as well as the limited studies on its use for treating SUD is a reason for exploration and rationale why this study is needed.

Ayurveda is an under-explored model for social work intervention with adults with a SUD. This study will contribute to the knowledge of this ancient alternative and holistic model of intervention. This study will augment the knowledge of the debate on decolonising social work theory and practice in that Ayurveda is an Eastern philosophy with strong links to the Indian culture (Talcherkar, 2018). Also, with the increase in the demand for treatment of SUDs, this study comes at a time where social work practitioners and academics are searching for alternative models to address the over-reliance on the Eurocentric and Westernised approaches. As such, the findings of this study provide understanding of Ayurveda as a model for treating persons with a SUD and could be utilised by academics for further exploration, and by social work practitioners as an alternative to Eurocentric and Westernised models which have been dominating SUD treatment globally.

1.4 Theoretical Framework

The ethics of care as proposed by Joan Tronto (1993) was selected to contextualise Ayurveda as a treatment model for SUDs. This feminist philosophical perspective towards morality and decision-making places emphasis on moral principles and actions in contrast to theories that relate to the absolute perspective. It identifies with human attributes and the relation of care between care givers and care receivers (Tronto, 1993). The five dimensions of this theory are described in the context of the current study:

Attentiveness is the analysis of care within four phases, namely, (1) caring about, (2) taking care of, (3) caregiving and (4) care-receiving. The first phase, that of caring about, recognises that care is necessary (Baart and Klaver, 2011). Linking to the current study, the extent of care and the need of such care will be described within the context of Ayurvedic principles which focuses on individual holistic wellbeing. Secondly, taking care of involves accountability to identify the need for care, to take care, and the response to the need for care (Baart and Klaver, 2011). In the current study, the gap and need for a specific type of care, namely Ayurveda as a treatment model for SUD, was investigated and the response to it from a social work perspective is described. Thirdly, care-giving involves identifying the direct need for care and meeting the identified need (Tronto, 1993). In this study, the potential of Ayurveda as a treatment model for SUD was investigated in terms of its effectiveness as a holistic approach to SUDs. As such, studies involving practitioners' perspectives on its use were selected and described in relation to the nature and scope of caregiving from an Ayurvedic perspective. Lastly, care-receiving explores the response towards the care received (Baart and Klaver, 2011). This SR determined the efficiency and feasibility of care received and how patients/clients with a SUD responded to Ayurvedic practices. **Responsibility** relates to the practitioner assuming responsibility for caregiving. According to Edwards (2009), taking responsibility for the need for care is essential as many clients are in a vulnerable state. In this study, responsibility refers to cultural competence and social diversity which are embedded in Ayurveda due to the cultural significance and the aim of diversifying the services for SUDs. **Competence** is regarded as ensuring continuous care, professional knowledge and growth in one's field of expertise (Edwards, 2009). Competence in this study relates to the identified knowledge, skills and ability of Ayurveda practitioners in the studies that were selected. **Responsiveness** relates to the service user's response to the care received. The ethics of care focuses on the

responsiveness and the continuity of care, making this framework relevant in its five dimensions with regards to the effectiveness of treatment and the ethical boundaries that should be considered when applying Ayurveda. The response can either be positive or negative—this response will be based on the care received which also can either be sufficient or insufficient (Held, 2006). In this SR, studies indicating the service users' experiences of Ayurveda were sampled to identify their response to this model in the context of SUDs. As such, literature indicating both the negative and positive views to responsiveness were used to provide a balanced perspective. **Integrity** relates to demonstrating genuineness, honesty and veracity in the care relationship context (Tronto, 1993).

In this study the researcher will only select studies that have been ethically approved by an identifiable ethics committee to ensure quality control and ethical standards, as this will add value to the integrity of the current study. The researcher is aware of the ethical boundaries, professional values, mission and standards of social work and social research, and has safeguarded these during the research process by conducting the study and reporting on the findings in a trustworthy manner, observing the ethical protocols required when conducting a SR.

The ethics of care is appropriate for the study as it is centred around care that resonates with principles of Ayurveda which focuses on holistic care.

1.5 Systematic Review

Due to the dearth of research about Ayurveda as an intervention model in treating SUDs globally and in South Africa, a SR was the preferred research

methodology since it can be used to identify existing literature on a phenomenon; in this case, the prevention and intervention methods in Ayurveda as an intervention model in effectively treating SUD in adults. SRs in research is defined as the collection and analysis of data by identifying relevant and critically reviewed research using systematic methods (McGaghie, Bordage, & Shea, 2001). For this reason, a qualitative research approach was used to identify Ayurveda as a treatment model in social work in treating adults with a SUD. According to Silverman (2020) qualitative research is aimed at discovering the identified gap within a research topic. In this study, it was found that there is an opportunity for the use of Ayurveda as an intervention model in effectively treating SUD in adults.

The research design, in other words the preparation of the research, addressing what, where, when and how the study is conducted (Mason, 2002) is presented in greater detail in Chapter 3. Research designs consider how the data is collected and analysed, which constitutes the blueprint of the research. A SR was conducted as it helped the researcher collect a range of data about Ayurveda as an intervention model in social work for treating adults with a SUD. Selecting a SR allowed for rigorous data collection by using a structured protocol; this is presented in Chapter 3. In following such a pre-determined process, the researcher was able to reduce bias regarding which documents to select for inclusion (Hanley & Cutts, 2013; Noble & Smith, 2018). Also, conducting a SR assisted in summarising the findings of all relevant singular studies on the use Ayurveda as an intervention model in social work for treating adults with a SUD, and combining them for a valid and reliable result.

While there is research on the topic of Ayurveda as an intervention model in social work for treating addiction, there is not a definitive answer of whether it

is an effective model for the treatment of adults with a SUD. SR was therefore ideal for this study as it offers the means to consolidate the literature through filtration.

1.6 Research Aim and Objectives

The aim of this study was to identify the effective use of Ayurveda as an intervention model in social work for treating adults with a SUD.

The objectives therefore were to:

1. Identify the prevention methods used in Ayurveda in addressing SUDs in adults.
2. Identify the assessment methods used in Ayurveda in the diagnosis of adults with a SUD.
3. Identify early intervention methods used in Ayurveda for addressing SUDs in adults.
4. Identify intervention methods used in Ayurveda in the treatment of adults with a SUD.
5. Identify methods used in Ayurveda for ongoing/after care of adults with a SUD.

1.7 Thesis Layout

Chapter 1 comprises an introduction to Ayurveda as an intervention model. The introduction, background and rationale, research aim, and research objectives, are discussed.

Chapter 2 contains an overview of existing research, focusing on Ayurveda as an intervention model for treating SUD. This chapter explains the origins and background on the development of Ayurveda as an ancient treatment model for use in addictions treatment. This chapter also presents the ethics of care as a theoretical framework to contextualise Ayurveda as a treatment option in SUD treatment aimed at adults.

Chapter 3 is focused on the research methodology that was selected for the study. The systematic steps undertaken to review Ayurveda as an intervention model in social work for treating adults with a SUD are presented.

Chapter 4 presents the results of the study. In addition to presenting the results, the characteristics of the selected studies are described, as well as the reach, efficacy, and implementation of the interventions.

Chapter 5 presents a summary and conclusions of the findings in relation to the literature. This chapter also presents conclusions regarding the aims and objectives of the study, as well as the strengths, weaknesses and limitations. This chapter offers recommendations for practitioners, researchers, and policy makers regarding the use of Ayurveda for the treatment of SUDs aimed at adults.

The next chapter contextualises the phenomenon by presenting the literature review on Ayurveda as a treatment model in SUDs, and the ethics of care as the selected theoretical framework.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The previous chapter presented an introduction of the research study. This chapter displays the literature review on the topic of Substance Use Disorders (SUDs) and Ayurveda as a treatment model for SUDs. This chapter also presents the selected theoretical framework for the study, which is the ethics of care as proposed by Joan Tronto (1993).

2.2 Substance Use Disorders

Substance Use Disorder (SUD) is a worldwide phenomenon. South Africa is among the top ten countries that has a high prevalence of SUDs with a rapid increase over the past twenty years (South African Community Epidemiology Network on Drug Use [SACENDU], 2023). The most common substances being used and abused in South Africa are alcohol, opioids, cannabis, nicotine, methamphetamine, and cocaine, all of which have negatively impacted many individuals, families and communities. Despite the demand for SUD treatment in South Africa, access to treatment remains low (SACENDU, 2022).

The understanding of SUDs may affect the way treatment is approached. According to Sussman and Sussman (2011), substance dependency refers to “giving over” or simply being “highly devoted” to an activity, substance or

person that may have negative influence. SUDs have been classified as a pathological form of learning as it changes the brain's chemistry and tends to execute rewarding and "pleasurable pathways" of instant gratification due to the release of hormones and dopamine; these reinforce certain behaviour patterns that become adapted to each individual and their dependency (Kauer and Malenka, 2007).

Over time, the dependency and the user become more stimulated by the substance use and its effects (Kalant, 2009). Many substance users engage in the dependency for a sense of belonging and escape. This becomes a culture which results in a sense of powerlessness and unmanageability (Boshears, Boeri and Harbry, 2011).

2.2.1 Levels of Substance Use

Within substance use, there tends to be a trajectory related to the use and the extent of dependency to substances. The development of the dependency and the maintenance of it is related to the inhibited levels of treatment and willingness to recover thereafter (Durrant, Adamson et.al., 2009). To understand the levels of substance use, there needs to be further understanding of various substance use disorders such as addiction and behavioural / process use disorders or addictions.

Substance use disorders or addictions include taking advantage of alcohol and illicit drug-like substances (cocaine, ketamine, cannabis, heroine, crystal meth and others) and abusing them the extent of dependency. These are recognised as chemicals and become a coping mechanism to many people. It becomes

harmful in terms of their health, mental well-being, emotional regulation and relationships with others such as family, work and partners (Compton, Jones and Baldwin, 2016).

Process or behavioural use disorders or addictions are regarded as impulsive behaviour leading to dependency that might not include a substance but still affect the individual's behaviour in a way that results in negative consequences such as isolation, lack of social integration and inability to form relationships or friendships due to impact of dependency controlling their behaviour (Karim and Chaudri, 2012). This includes gambling, gaming, sex, pornography, retail, co-dependency, social media or the internet and so on.

The dependency on these substances can be distinguished in two levels, namely psychological dependency and physical dependency. Psychological dependency includes the craving and control of the substance in terms of instant gratification, feeling a sense of escape and belonging, regardless of the shame and guilt thereafter (Karim and Chaudri, 2012). Physical dependency on the other hand focuses on the impact on the body when using substances and how it might either relate to the body's adaption to it to adapting the body, especially when withdrawals are evident (Karim and Chaudri, 2012).

These two levels of dependency may impact a level of tolerance as well. When abusing substances, an individual's tolerance increases, leading to a need and desire for more of the substance to get a similar or stronger feeling, and this increases the dependency and to a need for a different substance to achieve the same escape (Karim and Chaudri, 2012).

The levels of dependency and various forms of substance use are part of a cycle related to substance use. This cycle is known as the addiction cycle which includes stages of dependency. The addiction cycle to alcohol for example, includes three stages of addiction, namely, the binge/intoxication stage, withdrawal/negative affect stage and the preoccupation/anticipation stage (US Department of Health and Human Services, 2016). The binge intoxication stage includes consuming the substance and seeing it as a form of reward. The rewarding affect enables a positive reinforcement and instant gratification. This releases dopamine and receptors that play a role in rewarding effects. This directly affects the brain (US Department of Health and Human Services, 2016).

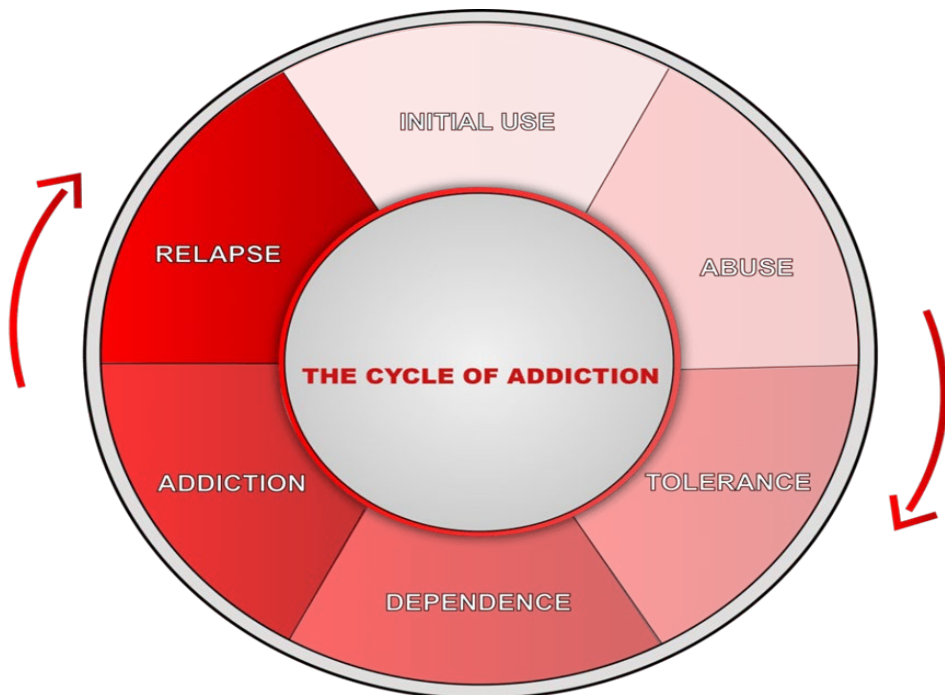
The withdrawal/negative affect stage includes the negative and emotional state the individual experiences when they do not have their substance. During this stage, the individual begins experiencing withdrawals which could result in physical illness or negative emotions and the intensity increases related to the dependency thus activating a craving for more. There is a decrease in the reward system related to the brain and the impulse for substance taking takes over (US Department of Health and Human Services, 2016).

The preoccupation/anticipation stage includes seeking substances due to the absence or wanting to abstain for a while. The craving begins to set in, and the individual finds it difficult to cope without the substance. Their thoughts, activities, actions, emotional regulation and impulse begin to revolve around substance use and the desire to use. They begin to experience triggers related to using and wanting to use once again as a reward (US Department of Health and Human Services, 2016).

The addiction cycle generally consists of six stages namely, initial use/triggers, abuse/cravings, tolerance/ritual, dependence/using, addiction/guilt and relapse (Gordon, 2016). In terms of the addiction cycle, the initial use is identified as the first time of using a substance and the way it is introduced to the individual. This stage identifies the history of the use and the risk factors implicating the initial use and impact on the individual on the initial use. It focuses on the risk factors which could include social issues, depression, childhood trauma and others. It identifies the feeling related to the initial use and the drive to continue using as a means of escape or instant gratification leading to abuse (Gordon, 2016).

Figure 2.1 is presented next which illustrates the cycle of addition.

Figure 2.1 The Cycle of Addiction



Source: Gordon (2016)

In terms of the cycle of addiction as illustrated in Figure 2.1, abuse relates to the continuation of using to have a state of euphoric recall. The using becomes regular and the dependency seems to increase gradually for more. The individual begins using higher doses than the initial use or might replace the substance with something stronger or begins cross addiction by replacing the substance with something stronger for a similar feeling of euphoria. (Gordon, 2016).

Tolerance is identified as using for a longer span of time. The brain becomes impacted by a response and reward system similar to the binge/intoxication stage of using. This is where the brain refuses to produce the same amount of dopamine as the initial use and the response varies.

Higher doses correlate to the tolerance level increasing. The individual begins to lose chemical receptors due to changing substances, cross addicting or becoming a poly user. Poly use is the use of more than one substance. For example, the user uses methamphetamine to get a feeling of euphoria, and then uses cannabis to “come down from the high”. In the addiction cycle, tolerance is characterised by the brain beginning to change its reaction to the drug which results in an increase in dependency for gratification (Gordon, 2016).

The dependency gradually begins as the person becomes an addict due to being heavily reliant on the activity and response of the substances. They begin to find it harder to cope without the substance as it

results in pleasure. The individual might become preoccupied by the idea of

substances and start using in all surroundings; this results in isolation from friends and family, and taking less responsibility, until eventually the using becomes unmanageable with no level of control, which leads to the experience of withdrawal (Gordon, 2016).

The addiction stage becomes evident, and the individual becomes aware that they have a problem, yet they are still in denial of the extent of their problem. The substance use begins to affect their finance, health, social life, and relationships. Their entire life revolves around the substance use and they are completely dependent on it. It begins to control them to the extent of not considering anyone else but the substance and constantly wanting it (Gordon, 2016).

The last stage of the addiction cycle is relapse. This final stage includes the individual going through the addictive cycle and experiencing withdrawals to the extent of feeling overwhelmed and not being able to stop using. They begin to seek ways of attaining their substance for emotional support and gratification, resulting in a dependency once again and they are held back from recovery (Gordon, 2016).

2.2.2 Effects of substance abuse on the user

Substance abuse has adverse effects on the user over prolonged periods of time such as physical and psychosocial effects. It may also impact family members and the community due to behavioural changes and patterns of isolation and aggression. The impact on the individual is immense and has significant impact on those around them. This section will merely focus on the effects on the

individual rather than the family. The physical effects of substance use may vary depending on the various substance uses and could impact age, health or even genetics at times.

According to Magill (2011) substances such as alcohol and tobacco could impact motor skills, speech, memory, liver, cardiovascular and respiratory issues and increase the risk of cancers. Substances such as cannabis and cocaine may impact heart rates, judgment, memory, concentration, constrict blood vessels, increase the risk of heart attacks and increase anxiety and paranoia leading to psychosis and aggressive behaviour. Opioids, methamphetamines and hallucinogens impact the heart rate, appetite, teeth, sensory perceptions and distorted memory and time lapses (Magill, 2011).

Although many are impacted psychically, psychosocial effects may be long-term and impact not only the individual but their loved ones. Psychosocial effects impact mental and social aspects of an individual's well-being. Magill (2011) states that this includes mental health disorders, relationship and financial strain, impaired cognitive functions, isolation, loss of productivity and impairment, legal difficulties and denial, guilt and shame.

Mental health disorders include the development or increase of anxiety, paranoia, psychosis and depression as well as mood disorders. The strain of SUD on relationships and financial are equally detrimental on both the user and their families and may lead to isolation and conflict with loved ones and romantic partners SUD – related issues impacts the level of communication, behaviour and judgment within relationships. It becomes harder to maintain finances and could result in financial difficulty or instability.

Many substance users struggle with cognitive functioning such as memory, concentration, lack of responsibility and poor decision-making skills after prolonged substance use. Isolation becomes evident due to the guilt and shame as many begin to alienate themselves and withdraw from others due to the stigma related to substance use (Magill, 2011). Also, according to Magill (2011), prolonged use may also impact performances at work and increase absenteeism whilst decreasing productivity; this can lead to job loss or academic difficulties. Legal consequences are a concern as well, should the user be arrested or imprisoned for using or selling substances, as this could potentially affect their jobs or track record for future opportunities.

Thus, substance misuse can cause a level of denial, avoidance, guilt and shame. However, if individuals minimise the import and impact of their using they could behave erratically; The user tends to believe that they know themselves best and do not need any help and this can lead to psychosocial consequences (Magill, 2011).

The diverse impact of substance use on the user and their families requires practitioners such as social workers to possess sound knowledge to address these challenging issues effectively. As such, the dominant theories in social work are discussed next.

2.3 Social Work Theories

There is a vast array of theories that social workers employ in terms intervention

relating to SUDs. The most common and widely used theories within intervention include person-centred approach, cognitive behavioural theory, narrative therapy and solution-focused therapy (Turner, 2017).

The person-centred approach is identified as a humanistic theory which was developed by Carl Rogers. It focuses on the individual's experience and perception of their own life. It includes principles such as

unconditional positive regard, empathy, congruence, self-actualisation, client-centred therapy, non-bias approach, holistic focus or principle such as process orientation (Turner, 2017).

According to Turner (2017), unconditional positive regard focuses on enabling a level of granting the client a level of respect without judgment or behaviour as well as practising positive regard for the client's views and needs. Empathy is regarded as the centre of this approach as it aims at understanding the client's feelings, thoughts and perspective to enable rapport and trust whilst ensuring a level of congruency or authenticity with the individual to guarantee honesty.

The principle of self-actualisation identifies with the resources and choices made by the individual towards a level of growth and decision-making. This approach is fully led by the individual and merely guided by the social worker. The individual is encouraged to explore and understand their own thoughts and identify with their own feelings and personal needs without bias or impositions (Turner, 2017).

Cognitive behavioural theory is a combination of cognitive and behavioural therapies with strong support. It is based on changing emotions, thoughts, and behaviour that cause distress. The therapies aim to build skills and self-awareness of thoughts, emotions and behaviour. This theory tends to align focus on thinking patterns, cognitions and behavioural change (Turner, 2017).

Thinking identifies with perceptions, differentiated thinking and inner dialogue, whilst cognition relates to the responses impacting behaviour such as the processes of attention, retention, motivation and consequences related to cognitive distortions. Behavioural involves change and focuses on misconceptions and the activities that prompt certain challenges (Turner, 2017).

Turner (2017) states that narrative therapy tends to initiate positive reinforcement within treatment. This approach focuses on the experience of the individual and the narrative that is shaping their sense of identity. The three intervention principles include focusing on the narrative that shapes their lives by assessing and uncovering it, separating the person from the problem, and reconstructing the dominant story of self which includes consciousness and restructuring of positive narratives.

Lastly, solution-based theory is a therapy that discusses solutions to unresolved conflict and provides coping mechanisms and other techniques to address challenges of the past, and childhood experiences related to the present/future (Turner, 2017).

The stages of this theory include describing the problem, developing well-formed goals, exploring exceptions, end-of session feedback and evaluating progress.

Describing the problem includes giving an account of the concern, whilst the process of developing well-formed goals encourages individuals to describe and develop their own goals. Exploring exceptions involves asking questions based on the problem and issues of less concern, as well as exceptions that may be possible. End-of-session feedback aims at reinforcing what is solved and could be solved, as well as goal-related feedback. Evaluating progress monitors the growth and satisfaction of the solutions (Turner, 2017).

These social work theories are predominantly used within the scope of substance abuse disorders and have helped many individuals identify the need for treatment; they provide positive reinforcements towards their recovery with the help of trauma informed theories and the support of autonomy and congruency.

2.3.1 Social work intervention aimed at SUDs

Substance abuse disorders and treatment are underpinned by various interventions within the social work realm. Social work plays a significant role in addressing these disorders by utilising various interventions when working with the individual and their families during treatment. Some interventions address the psychosocial needs of the individual to ensure support with regards to the willingness of recovery (Stanger and Weber, 2018). These interventions include biopsychosocial and risk assessments, micro and mezzo intervention (individual and group therapy), family intervention, crisis intervention, support plans, prevention education and relapse prevention (Stanger and Weber, 2018).

Stanger and Weber (2018) state that biopsychosocial assessments and risk

assessments provide an all-inclusive understanding of the individual's biological, psychological and social aspects as well as the risk factors contributing to their substance use.

The biological factors assessed are the user's medical history, substance abuse history and any genetic susceptibilities, whilst psychological factors include mental health history, cognitive and emotional tolerance and functioning. Social factors concentrate on family dynamics, childhood trauma and family history or background, support systems, relationships, educational and work history, as well as cultural backgrounds, community influence and societal expectations. The environmental factors that are assessed include the individual's current living circumstance, financial dependency or stability and any legal challenges (Stanger and Weber, 2018).

Biopsychosocial assessments explore the various factors and functional assessing of daily tasks performances, strengths, weaknesses and any other formal diagnoses. It encompasses a multidisciplinary team of social workers, psychologists, doctors, nurses and psychiatrists (Stanger and Weber, 2018).

Micro and Mezzo intervention within substance use disorders tend to focus on various social work theories and therapies that include individual treatment plans based on the needs of the client. These therapies ensure confidentiality, and provide a space to explore trauma, mental health, unresolved resentments or conflict; it includes crisis intervention for withdrawals or relapse, and builds rapport and alliance with the individual to ensure levels of trustworthiness Mezzo intervention or group therapy uses support group creation to ensure a sense of belonging and community for the individual so that they feel heard and seen; decrease the isolation and ensure trust; allow them to learn from others'

experiences and find a sense of familiarity through that; create interpersonal skills such as communication, consideration, empathy and conflict resolution; encourage the sharing of themselves to gain insight; and relate to one another as well as take accountability (Stanger and Weber, 2018).

Family interventions include therapeutic interventions for the individual and their loved ones with regards to accountability and expressing coping mechanisms, as well as behaviours that impact one another due to substance use. It encourages effective communication and understanding.

Stanger and Weber (2018) suggest that a crucial part of intervention includes support plans, prevention education and relapse prevention. This enables the individual to feel supported during their recovery and to be guided towards sobriety with the understanding of accessible resources, as well as provide positive reinforcements to ensure relapse prevention by continuing therapy, finding a necessary sponsor and attending their meetings.

2.3.2 Treatment models in social work practice

Substance abuse disorder facilities encourage various treatment models whether in-patient treatment or out-patient treatment facilities. Two most common models within treatment include the 12-step model and the matrix model.

The 12-step model was introduced through AA (Alcoholics Anonymous) in the 1930s. It is described as a spiritual orientated framework that identifies and explores substance abuse disorders and addictive thinking and behaviour

patterns (Wilson, 2019). These steps explained by Bill Wilson (2019) include:

1. Admitting Powerlessness, Unmanageability and Loss of Control: Focusing on surrender and the need to admit feeling powerless over the addiction.
2. Identifying and exploring the need for a higher power: Believing a power greater than ourselves to restore to sanity.
3. Turning control over to a higher power: Making the decision to turn our will and lives over to a higher power.
4. Self-reflection and moral inventory: Searching and making a moral inventory of traits towards accountability.
5. Admittance of our wrongs to others: Admit our wrongs to our higher power and others.
6. Readiness to have defects explored: Becoming entirely aware of our defects and character flaws, giving over control to our higher power.
7. Request the removal or awareness of character defects or flaws: Asking our higher power to identify and create awareness of our shortcomings.
8. Making amends: Making a list of people we have harmed and being willing to make amends and forgive ourselves.
9. Making direct amends: Where possible, making direct amends with people we have hurt.
10. Continued self-reflection and admission: Making a personal inventory to remain accountable when doing wrong.
11. Seeking spiritual awareness: Utilising levels of spirituality such as prayer, journal, and meditation to improve level of consciousness with a higher power and therefore avoid the need to take control.
12. Helping others and spiritual growth: Spiritual awakening regarding steps and carrying forth the message to others.

These twelve steps are an integrated part of early treatment and recovery. They focus primarily on spiritual well-being, support systems such as the fellowship

group, and enhancing personal growth, anonymity and adaptability. It enables a sense of communal benefit as well as enabling assisted treatment and approaches that align with every individual's belief system and needs (Wilson, 2019).

In contrast, the matrix model of treatment is an integrated treatment that combines the intervention of stimulants and more. It is used as a structured outpatient approach rather than in-patient treatment approach (Mosel and Sharp, 2023).

The client using this model may undergo sixteen to twenty-four weeks of treatment and evidence-based therapy. When the model was founded, it was primarily used to treat cocaine and methamphetamines abuse. The matrix model focuses on understanding addiction and the dangers of relapse; developing

relapse prevention plans, healthy social behaviours and coping mechanisms; and integrating the twelve steps by working towards individual goals (Mosel and Sharp, 2023).

The matrix model is a structured, time limited model. It includes therapeutic services like continuous individual and group therapy, education and information such as lectures and workshops on the impact of substance use and its consequences, family counselling, monitoring of drug testing and reinforcing positive behaviour, identifying triggers, managing any high risk or challenging situations, and building a recovery community network of resources whilst utilising the 12-step programme (Mosel and Sharp, 2023).

These two models are integrated in many facilities to ensure the facilitation of continuous care and insight for individuals in recovery (including early recovery by utilising the therapeutic alliance built and continuing their autonomy and the facilitation of the twelve steps with a sponsor.

2.3.3 Types of treatment for SUDs

Two types of treatment can be identified when exploring substance abuse disorders. Many facilities provide early intervention of inpatient or out-patient services. Inpatient services can vary from a month up to six months at a time, whilst outpatient treatment time varies according to the individual and the resources available (Woodward, 2019).

Inpatient services are considered residential. Inpatient treatment usually includes being accommodated within a facility and living onsite with 24-hour supervision during their treatment. According to Woodward (2019) clients usually have a set structured programme within residential treatment that may entail intensive care, therapy, group therapy and medical facilitation. Many inpatient facilities provide detoxification and psychiatric oversight to help ensure safe withdrawals (Woodward, 2019). The stay also involves a routine and facilitates exposure to triggers through interacting with peers and utilising approaches within the programme for the duration of the in-patient process.

Out-patient treatment is less facilitated and monitored. It enables more responsibility for the individual. It allows the individual to have their own privacy and setting at home while taking on their own responsibility of attending

to their schedule. It is more flexible as they can work, be with their families, and structure their own day (Woodward, 2019). It includes regular testing before sessions to ensure accountability, as well as therapeutic services once a week.

Clients have a level of independence as they are able to implement their own strategy and self-efficacy. Out-patient treatment is also more cost-effective and enables aftercare planning due to level of flexibility; however, the need for support is higher as they are in their own environment and not a structured one with a recovery network (Woodward, 2019).

Furthermore, these treatments and services of care tend to be combined for the better outcome. Many facilities tend to encourage in-patient treatment for three months and gradually guide individuals into out-patient care and aftercare facilities after the three months of residential care to ensure support and personal growth.

2.3.4 Intervention techniques for SUDs

Western modalities have dominated SUD treatment in both in-patient and out-patient services (Halpern, 2016). These modalities include treatment services such as detoxification with the use of Western medicine, psychotherapy, psychiatry, 12-step facilitation, group and individual therapy, along with the use of various therapeutic systems such as Cognitive Behavioural Therapy (CBT), Dialectical Behavioural Therapy (DBT), Rational Emotive Behavioural Therapy (REBT) and aversion therapy (Marsh et.al, 2015).

According to Marsh et al. (2015), the use of indigenous modalities has increased in various parts of the world but this has either been appropriated by or used alongside Western medication; this practice can often decrease the impact of a holistic approach as many people with a SUD become dependent on medication rather than it ensuring the continuity of holistic methods of treatment.

In the new evolution of holistic treatment approaches, there is a gap regarding the use of homeopathy such as Ayurveda as a form of treatment for SUD (Talcherkar, 2018). The use of Ayurveda as an alternative and holistic approach to SUD has increased the effectiveness of treatment in terms of emotional, physical, social and spiritual wellbeing. Ayurvedic treatment focuses holistically on the prevention of disease through using natural minerals and rehabilitative coping mechanisms to ensure effectiveness (Modir & Munoz, 2018).

There is a lack of alternative holistic approaches in treating SUDs generally and in social work practice particularly (Talcherkar, 2018). This gap in treatment services requires exploration, therefore, within the new evolution of social science, this research aims to determine the effectiveness of Ayurveda as a treatment model for SUDs. As such, Ayurveda as a treatment model is discussed next.

2.4 Ayurveda as a Model in Social Work Intervention for SUDs

2.4.1 Origins of Ayurveda

Ayurveda is regarded as an energy-based modality that aims to restore balance

and enable an individual's capacity for self-healing (Lake and Spiegel, 2007). Ayurveda originates from India and is one of the oldest systems of science and medicine as it dates to the 16th and 17th centuries. Ayurveda is defined as the 'Science of Life'. Ayu meaning Life and Veda meaning the Knowledge and Science of the Hindu System (Talcherkar, 2018).

Ayurveda was discovered in Indus Valley and recorded in the book of wisdom, also known as 'Vedas', which is recognised as the oldest written knowledge in India's history and is said to have originated between 1,700 and 1,000 B.C.E. (Ketabi, 2017).

The belief that health is achieved through the balance of the mind, body and spirit was developed approximately 5,000 years by Indian practitioners and healers to observe health and to understand the various facets of the individual. This modality was passed down for generations and became the leading medical system in India (Ketabi, 2017).

According to Ketabi (2017), the first Ayurvedic medical school was developed around 800 B.C.E. and was influenced by a scholar named Charaka, who identified 1,500 different plants and confirmed as many as 350 of these as being significant for use in medication and healing. As Ayurveda practitioners worked towards understanding the human body, the belief system began to spread across India, China and Indonesia. It was eventually translated into Chinese by 400 C.E. and greatly influenced what we know today as Chinese medicine (Ketabi, 2017).

The modality spread across the Persian empire, Europe and Somalia. It significantly contributed to European medicine and Herbology. Ketabi (2017)

expressed that Buddha was a follower of Ayurveda and the spread of Buddhism was encouraged with the practice of Ayurveda to balance the human mind and body as well as to increase knowledge around diseases and body types, and to achieve well-being.

Unfortunately, when the British took over and ruled India, Ayurveda became labelled as an archaic practice and was banned thereafter due to the reinforcement of Western medicine on Indian people. Many continued the practice and traditions within their homes, and it became an underground practice for home remedies and recipes that many still use today. It became known as the “kitchen medicine” due to the healing properties of food, spices, oils and herbs. The practice is still considered ancient wisdom and has been gaining popularity as a holistic approach (Ketabi, 2017).

2.4.2 Principles underlying Ayurveda Philosophy

Ayurveda teaches two main principles within the philosophy: the preservation of health and methods, and medicine and tactics for disease management and ailments (Ketabi, 2017).

The preservation of health indicates the maintenance of wellness and how to avoid illness, whilst the methods, medicine and tactics for disease management and ailments focus on how to return to health and regain a balanced level of well-being (Ketabi, 2017).

Ayurvedic principles are predominantly based on the idea of five universal

elements or energies. Ether, Air, Fire, Water and Earth make up the energies of three doshas which circulate through the body, as well as governing physiological activity, namely: Vata, Pitta and Kapha (Carpenter, 2019).

According to Halpern (2016), Vata is represented by Shiva, the destroyer; Pitta is represented by Vishnu, the preserver; and Kapha is represented by Brahma. Gunas are defined as the elements that govern the mind whilst doshas influence the body and the functioning of the body. These elements enable a level of interconnectedness between the mind, body and spirit and must be balanced for good health and well-being (Shilpa and Venkatesha Murthy, 2011).

Ketabi (2017) states that there are eight branches within Ayurveda, namely; Kaya Chikitsa (internal medicine focusing on disease in the body and the three doshas), Urdhvaanga Chikitsa (otolaryngology related to the neck and head), Damstra Chikitsa (toxicology focusing on the food we eat, the environment we live in, and our thought process), Shalya Chikitsa (surgery such as bladder stone or intestinal obstruction), Bala Chikitsa (paediatrics focusing on childhood health), Graha Chikitsa (psychiatry focusing on mental health, meditation and other mental imbalances),

Jara Chikitsa (gerontology focusing on aging and problems of the elderly) and Vrishya Chikista (aphrodisiac therapy focusing on sexual health, intimacy, fertility and sexual dysfunctions).

Ayurveda was used for those with physical/biological illnesses and, with the development of medical science, soon evolved to treat mental health and substance use disorders (Narayanaswamy, 1981). The Indian system of

medicine is based on logical and rational foundations that examine the understanding of the human environment (Narayanaswamy, 1981).

The originators of Ayurveda had no records of any existing research on anatomy, physiology, pharmacology or pathology due to the most recent original book of the Ayurvedic text being 400 years old. Since then, the development and evolution of disease classification, prognosis and therapeutic drug descriptions have enabled more literature and knowledge towards the evolution of Ayurvedic treatment (Narayanaswamy, 1981).

According to Carpenter (2019), Ayurveda encompasses the use of diet, lifestyle, herbs, meditation and regimes to foster self-awareness of the mind, body and soul. Also, it identifies factors such as age, stressors, mental and emotional conditions, diet and home remedies. Fundamental views regarding balancing and instigating healing through Ayurveda include the exploration of key principles such as the doshas (energies enforcing functioning), prana (life force) and the recovery process within diagnosis of the illness (Lad, 1997). Ayurvedic practitioners such as Talcherkar (2018) examine the “psychosomatic constitution, mental health, disease susceptibility, age, gender, exercise and addiction history” (Ravishankar and Shukla, 2007). Practitioners also use diagnosis methods which include appearance, pulse, mouth, speech, skin, eyes, stool, urine and voice (Ravishankar and Shukla, 2007).

In Ayurveda, individualised treatment is fundamental. Ayurvedic practitioners focus on the nature of symptoms and causes. According to Ninivaggie (2008), “The subsequent threefold cause of

diseases is *prajna-aparadha*, *kala-parinama*, and *asatmyendriyarthasamyoga*”, the first of which is explained as the “mistake of the intellect” or “error in wisdom”. The second cause is “the changes over time,” which could occur either over a life cycle, the course of the day or seasonal shifts in the year.” The third cause being “the disproportional contact” of substance with organs or sensory objects which results in a disconnect between what is perceived and what the body can potentially handle (Ninivaggie, 2008).

Brooks (1994) states that Ayurveda is depicted through a humanistic lens and provides a compassionate framework towards sobriety. Ayurvedic principles and modalities address substance use disorders and the prevention of illness. Western modalities compare allopathic reduction approaches and the Ayurvedic holistic approach (Sharma et.al, 2007).

Ayurveda determines philosophical frameworks and approaches with “good effects” derived from ancient Vedic sutras and therapy, whilst Western modalities, including allopathic medicine, derive results and philosophical underpinnings from the use of medication and various therapies (Ravishankar and Shukla, 2007).

In relation to SUD, the Ayurvedic system of medicine works towards destabilising compulsion and dependence (such as SUD) whilst stabilising the mind by encouraging a sense of self-control through herbal formulations, therapies and lifestyle correction during the treatment of substance use disorders such as alcohol, nicotine and narcotics (Rathi & Rathi, 2020). In active addiction the balance within the three doshas are disrupted and Ayurvedic practises enable a doshic equilibrium towards recovery (Halpern,

2016).

Ayurveda, yoga, therapy and alternative approaches have been given significance in disease prevention and recovery due to the maintenance and continuous application of Ayurveda through assisting the body's own ability to heal (Lake and Spiegel, 2007). Therefore, Ayurvedic treatment may be useful in addressing the underlying issues that result in SUD and identifying challenging areas as well as the risk and protective factors that contribute towards addictive behaviour (Rathi & Rathi, 2020).

2.4.3 Ayurveda for treatment of SUDs

Ayurveda forms part of tertiary prevention within SUD, focusing on the treatment of drug dependency and prevention of relapse. Ayurveda, when used within a social work spectrum, focuses on social work intervention services such as micro-level intervention services including the task-centred approach.

Ayurvedic treatment is a form of task-centred approach that enables the social worker to explore goal attainment and significant roles and tasks with clients in substance use disorder, including diet changes, lifestyle changes and routine and spiritual energy alignment in Ayurvedic treatment (Talcherkar, 2018). With the maintenance of our health and well-being, Ayurveda can be used as a social work service in SUD as it encourages more therapy with individual attention rather than just dispensing of medication (Talcherkar, 2018).

Jayasundar (2010) states that Ayurveda aims to understand the body and the

nature of the illness. She notes that the practice of Indian indigenous ayurvedic methods declined due to traditions being forgotten and Western medicine becoming predominant in society.

The ayurvedic Ayurvedic diagnosis and practises are based on psychological and physiological functions, . It enables personal responsibility and empowerment of the client by, shifting the reliance towards an empowered level of self-care and efficiency (Jayasundar, 2010). It enables a life-force energy which is utilised with the guidance of social work theories such as Cognitive Behavioural therapy and Narrative therapy in SUD.

However, the use of Ayurveda in SUD enables those in treatment to utilise a more holistic approach towards treatment and wellbeing without creating a dependency on medication and rather using natural elements. It constructs the SUD and the importance of constitutional balance to alleviate addictive propensities (Talcherkar, 2018).

Furthermore, Talchekar (2018) states that Ayurveda describes SUD as a displacement of our innate doshic (energy) constitutions which is explored in the approach. Ayurveda treatment enables a more harmonious state of behaviour without the influence of medication, instead using therapy and the maintenance of a constitutional equilibrium towards health and well-being. Additionally, it also enables more restorative approaches such as yoga, de-addiction treatments in detoxification, and purifying therapies such as breathing techniques, meditation and herbal oils (Talcherkar, 2018).

These treatment techniques in Ayurveda may enable more feasible treatment and

an extrinsic view of one's individual self in terms of a person-centred approach to social work. Studies of Ayurvedic treatment such as those conducted by Talcherkar (2018) have identified the gap between SUD treatment and the lack of Ayurvedic treatment in prevention and treatment services.

Many institutions have made use of holistic treatment such as spirituality practices, yoga, meditation, acupuncture, physical exercise and importance of nutrition and yet have not used the holistic resources as an all-inclusive treatment. Instead, they have appropriated certain aspects of Ayurveda. (Marsh et al., 2015).

This selective use of the model inhibits the full effectiveness of the model and does not enable the essence of the practice to be fully grasped and understood due to selective use together with the reinforcement of Western modalities with the holistic treatment (Talcherkar, 2018). The selective use is in essence the rationale why this study is required and why exploration is needed.

2.4.4 Techniques used in Ayurveda in treating SUDs

Ayurveda is a theory that can be used to explain the phenomenon of SUDs, and it is also a model that can be used in the field of SUDs because it focuses on the balance of energies. Talcherkar (2018) states that all diseases and illness could be alleviated or prevented with the maintenance of these energies through this model. This holistic model looks at understanding the SUD's characteristics, habits, and hereditary traits.

The Ayurveda model offers specific techniques that can be used for the treatment of SUDs such as yoga, meditation and therapies. Therapies include purification therapy (panchakarma), administration of purgative substances through cleansing, drinking decoction for the release of toxins, herbal medicines and more (Talcherkar, 2018).

As such, Ayurveda is comprehensive and versatile as it enables a more cost-effective manner of treatment that relies on holistic practices and accessible resources rather than Western modalities of medication. It simply facilitates activity, spiritual well-being, cleansing and detoxification through therapy. It encourages the use of herbal oils, massages and the understanding of the body and where suppressed emotions are stored by using therapies such as meditation, yoga and trauma release exercises.

Talcherkar (2019) states that Ayurveda as a holistic approach enables preventative measures towards illness and disease as its goal is to achieve optimal health rather than only alleviating substance abuse. It encourages concepts of Yoga Sutras, breathing, eating habits, exercise and higher power identification which is highly integrated in the 12-step program.

2.4.5 Criticisms against Ayurveda philosophy

Ayurveda has been seen as relying on basic natural principles and many practitioners, specifically those within a quantitative spectrum, have difficulty adapting to the approach which brings about limitations and assumptions (Lake and Spiegel, 2007).

According to Lake and Spiegel (2007), modern practitioners and researchers have difficulty in evaluating Ayurvedic practises through the perceived societal scientific standards and clinical trials.

In Western modalities, substance abuse disorder treatment centres are not fully equipped towards an all-exclusive Ayurvedic programme in terms of treatment and appropriate portions of Ayurvedic practises such as breathing techniques, meditation and yoga. All exclusive programmes require Ayurvedic principles and approaches towards health care that may differ from Western medicine (Jayansundar, 2010).

According to Jayansundar (2010), the limitations towards Ayurvedic practices include feasibility, access to qualified practitioners and insurance reimbursements. Ayurvedic recovery programmes can be guided towards being more practical and affordable for clients and treatment than continuous medication, but such programmes are not fully embraced in conventional treatment and need to be explored.

2.4.6 Merits for selecting Ayurveda as a treatment model for SUDs in Social Work

As a holistic modality, Ayurveda is designed to identify and restore balance, as well as encouraging self-healing and reintegration of recovery. It is seen to promote well-being through mind body and spirit due to its ancient teachings.

The approach extends to addressing substance use disorders with the promotion of therapy, yoga and destabilising a sense of dependency on substances whilst utilising a holistic approach towards cognitive restructuring and a “doshic

equilibrium” for recovery. It allows a sense of identification regarding disease prevention and self-healing of the body and mind.

As with any other approach, Ayurveda does however face criticism based on clinical evaluations and interventions. It does become challenging regarding the integration with Western modalities and standards which limit the mainstream treatment facilities and programmes offered.

Overall, Ayurveda emerges as a promising model within social work intervention, particularly within the ideas of prevention in SUDs focusing on treatment and drug dependency. Rooted in principles, social workers can integrate this holistic approach within the mirroring of micro and mezzo level intervention and task-centred approaches.

The Ayurvedic model as stated by Jayasundar (2010) shows a willingness towards understanding the body and SUD illness which intertwines with theories such as Cognitive Behavioural Therapy and Narrative therapy to enable a client-centred approach towards personal responsibility and empowerment.

2.5 Theoretical Framework

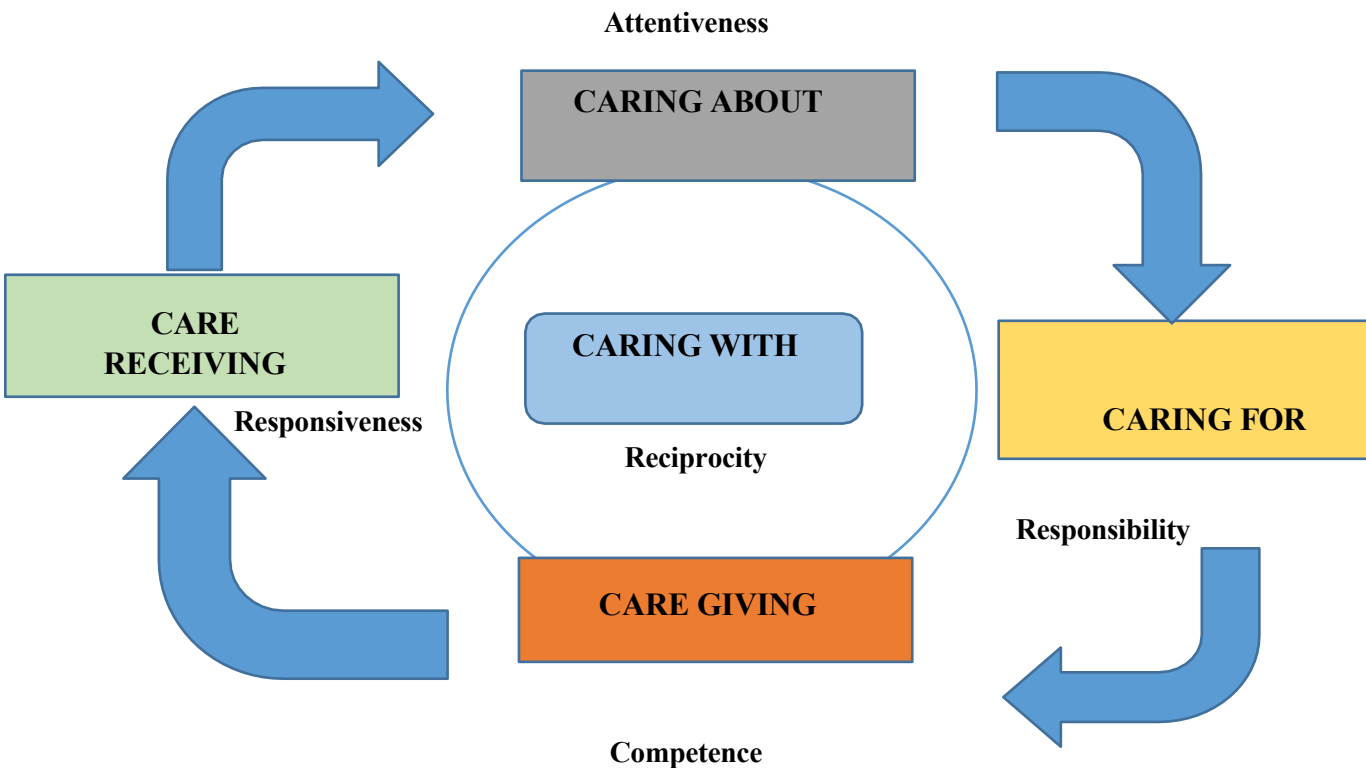
Joan Tronto’s (1993) ethics of care, as cited by Edward (2009), is the selected theoretical framework for this study. The ethics of care is a feministic philosophical perspective that emphasises moral principles and actions in contrast to theories relating to the perspective of absolute. It identifies with human attributes and the relation of care between care givers and care receivers (Tronto, 1993). The five dimensions of this theory will now be described in the

context of the current study.

2.5.1 Dimensions of the ethics of care

Tronto (2013) proposes five dimensions of care ethics. The dimensions of care are discussed below. They are presented in Figure 2.2 which was designed by the researcher and adapted from Tronto (2013).

Figure 2.2 Tronto's Five Dimensions of Care



Source: Researcher's design adapted from Tronto (2013)

The five dimensions of the ethics of care illustrated in Figure 2.2 are explained next.

Attentiveness: Attentiveness is the analysis of care within four phases, namely, (1) caring about, (2) caring for, (3) care giving and (4) care receiving and (5) caring with.

The first phase, **caring about**, recognises that care is necessary (Bart and Klaver, 2011). Caring about places emphasis on acknowledging the needs of others. It is a foundational phase that establishes the manner for actions of care and involves the moral attention towards needs of others or groups.

Secondly, **caring for** (taking care of) involves taking accountability for identifying the need for care, to take care, and to respond to the need for care (Bart and Klaver, 2011). Caring for builds on the recognition and acknowledgement of the needs established in the first phase. It signifies the responsibilities that arise with the needs identified. This phase involves the assessment in terms of how to respond to these needs, to ensure effective action towards the provision of care.

Thirdly, **care giving** involves identifying the direct need for care and meeting the identified need (Tronto, 1993). Care-giving focuses on the implementation of care once a plan has been established in terms of addressing the needs. It is a hands-on approach in terms of action taken to provide care and support (Edward, 2008). In this study the potential of Ayurveda as a treatment model for SUD is investigated in terms of caregiving to persons with a SUD.

Lastly, **care receiving** explores the response towards the care received (Baart and Klaver, 2011). This phase focuses on the experience of those receiving care. It signifies the importance of recognising the active role of care in the caregiving process, as well as the responses to care received that may have an impact on the effectiveness of care.

Responsibility: Responsibility is a fundamental aspect encompassing the ethical obligation of practitioners to take accountability for the care provided. According to Edwards (2009), taking responsibility for the need for care is essential as many clients are in a vulnerable state and rely heavily on caregivers for guidance and support. It extends beyond physical needs to also recognise the emotional, psychological and social needs in terms of care. In Ayurveda's holistic approach of medicine, the concept of responsibility emphasises cultural competence and social diversity. Practitioners are not only responsible with providing care but also the understanding and respect of cultural backgrounds and the belief systems of their clients. This cultural competence is essential for effective and personalised care, especially for those with SUDs who might face challenges and stigmas related to their condition.

The Ayurvedic care approach considers the body, mind and spirit. This perspective enables practitioners to take responsibility in terms of understanding the diverse cultural context of their client's lived experiences. This tailors the intervention to align with the values and practices of different cultures, enhancing the effectiveness and provision of care. For example, the incorporation of traditional healing practices or preferences could resonate with the cultural background of the client, resulting in an increase in trust and collaboration in the caregiving process.

Additionally, the responsibility of practitioners extends towards the advocacy for social justice and equality in healthcare and recovery. It involves recognising systematic barriers that marginalised populations may be exposed to regarding the accessing care and addressing challenges. In terms of SUDs, practitioners can play a role in promoting awareness and understanding the cultural factors that influence substance use and recovery.

Competence: Competence is regarded as ensuring continuous care and professional knowledge and growth in one's field of expertise (Edwards, 2009). As emphasised by Edwards (2009), competence is essential for ensuring tasks are performed with high-quality care that is continuous to promote trust between the practitioners and their clients. This concept is relevant in the field of Ayurveda, as practitioners must possess a deeper understanding than practitioners of Western modalities of traditional practices and contemporary health care principles and grasp the diagnostic methods and treatment modalities of the ancient system of medicine. Practitioners must understand the doshas (body constitution), as well as herbal remedies, dietary preferences and lifestyle changes integral to Ayurvedic care as this enables the assessment of unique needs of each client and the development of personalised treatment plans that promote holistic well-being.

Competence in Ayurveda is not static; it requires commitment to lifelong learning and professional development. Practitioners must remain informed about advancements in Ayurvedic research and modern medical practices to ensure evidence-based care. It requires continuous participation in furthering their education by attending workshops, engaging in peer collaboration and participating in organisations that promote Ayurvedic practices.

Additionally, competence encompasses the development of skills such as communication, empathy and cultural sensitivity. These interpersonal skills enable the building of rapport, understanding concerns and fostering support. Practitioners must be able to take on active listening skills, be responsive to client's needs and adapt their approaches based on individual preferences and cultural backgrounds.

Furthermore, competence in Ayurveda includes the understanding of ethical considerations and professional responsibilities. Complex situations must be navigated with integrity, respecting the autonomy of their clients while providing guidance and support. This is crucial in terms of maintaining trust and confidence within the client, especially within the field of addiction, where stigma and vulnerability are evident.

Responsiveness: Responsiveness relates to the service user's response to the care received. It encompasses not only the feedback from clients regarding their experiences but also the implications of those responses on continuity and effectiveness of care (Held, 2006).

In this framework, responsiveness is multidimensional as it involves several key elements contributing to the overall effectiveness of treatment. Caregivers are required to be attuned to the needs and preferences of their clients. The attention allows the adjustment of approaches based on the client feedback, which ensures that the care provided is tailored to the individual circumstances of each client. For example, in Ayurveda the practitioners have to be sensitive to how clients respond to specific treatments or recommendations due to personal beliefs, cultural backgrounds and individual health conditions. Responsiveness also involves the ethical obligation of caregivers to create a

comfortable environment to express thoughts and feelings about the care received. This open communication encourages clients to share their experiences, whether it is positive or negative. When clients feel heard and seen, they are more likely to engage actively, and this leads to a better outcome.

Another critical aspect of responsiveness is the continuity of care. It refers to the ongoing relationship between the client and caregiver or practitioner which is essential for building rapport and ensuring consistency and coherence over time. In the context of Ayurveda, this allows the practitioner to monitor the progress of the client and make necessary adjustments to provide ongoing support.

The effectiveness of treatment is linked to the responsiveness of clients regarding the care they receive. Positive responses indicate that the care is sufficient and aligns with the clients' needs, leading to improved health and satisfaction. Negative responses may signal that care is insufficient and/or misaligned, thus prompting caregivers to reevaluate their approaches. As stated by Held (2006), the nature of these responses can influence the ethical boundaries within which caregivers operate. For example, if a client expresses dissatisfaction with their treatment plan, the caregiver has the responsibility to address these concerns and explore alternatives.

Integrity: Integrity relates to demonstrating genuineness, honesty and veracity in the care relationship context (Edward, 2009). It plays a significant role in establishing trust, fostering open communication and ensuring that care is delivered with respect, dignity and autonomy.

Integrity involves being true to oneself and others. In the caregiving context, it includes practitioners being authentic in their interactions with clients and presenting themselves honestly and transparently. Genuineness allows connection with clients on a deeper level, creating an environment where clients feel safe to express concerns, fears and hopes.

Moreover, honesty is another significant aspect of integrity. Accurate information about treatment options, potential risks and expected outcomes must be provided by the caregivers. This level of transparency empowers clients to make informed decisions about their care. The evidence of honesty demonstrates respect for the client's autonomy and their ability to participate actively in their own decisions, whereas a lack of honesty can lead to misunderstanding, mistrust and potentially harmful consequences for clients.

Integrity also involves adhering to ethical standards. Complex situations must be navigated with a strong moral compass, ensuring that actions are aligned with the values of the profession and taken in the best interests of the clients. The commitment to ethical practice reinforces the trust that clients place in their caregivers and enhances the quality of care.

The fifth dimension, **caring with**, is concerned with solidarity or reciprocity. With reference to this study, reciprocity relates to empowering the care giver and care receiver in terms of knowledge about Ayurveda as a treatment option in SUD treatment. This reciprocal learning could

be extended through advocacy and creating awareness of Ayurveda as a treatment option in SUDs in social work. As such, principles of reciprocity can be expressed throughout the process of caring.

2.5.2 Application of the ethics of care and Ayurveda for treatment of SUDs

A case study developed by the researcher is now presented to demonstrate the application of the ethics of care and principles of Ayurveda.

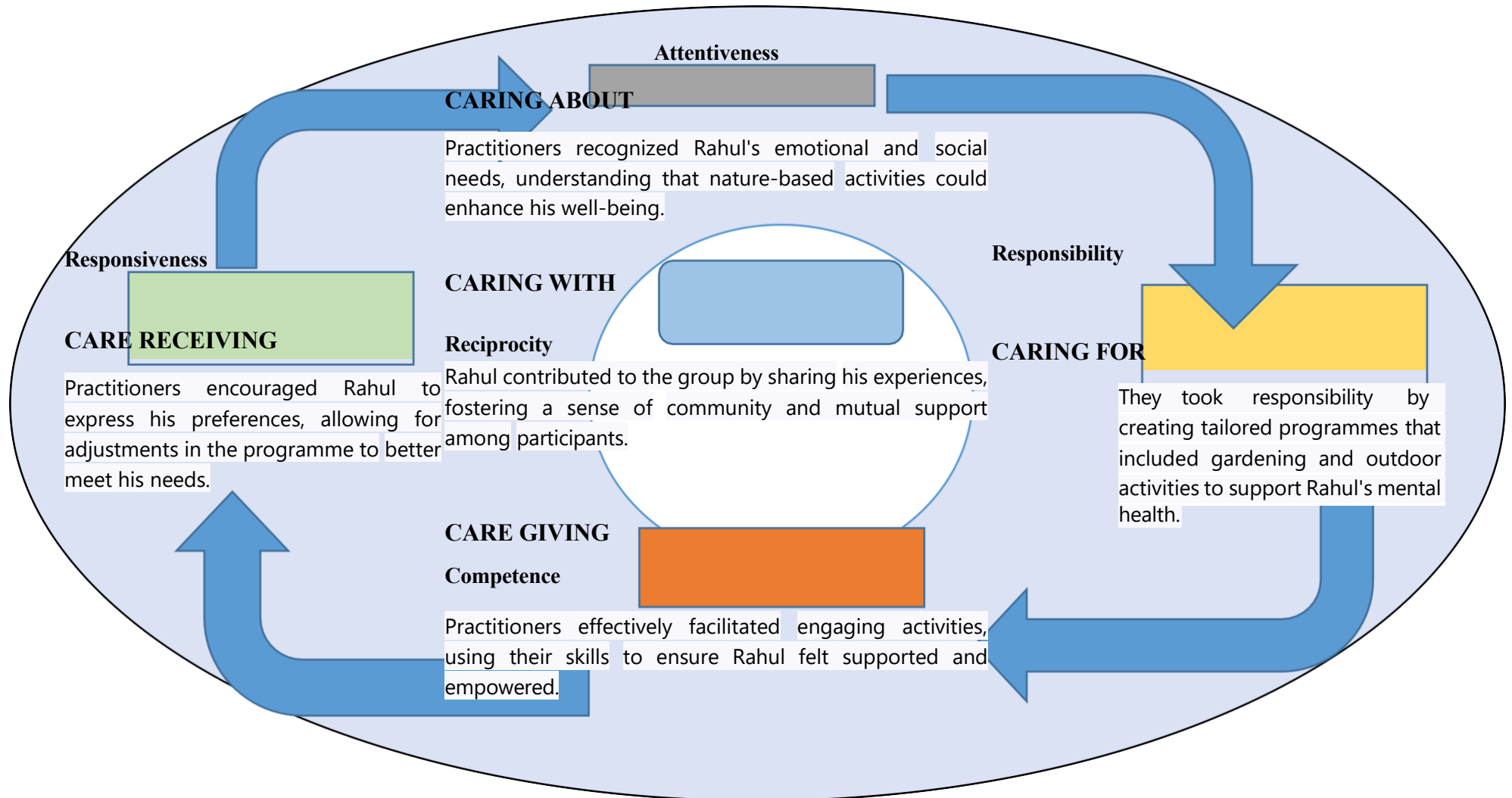
2.5.2.1 Case Study: Managing Alcohol Use Disorder in a Young Adult

Background: Rahul is a 28-year-old man who has been struggling with alcohol use disorder for the past five years. Initially, he started drinking socially but, over time, his consumption escalated, leading to significant personal and professional consequences. Rahul has experienced multiple episodes of withdrawal and strained relationships with family and friends, and his overall health has declined. He seeks help after realising that his drinking is affecting his job performance and mental well-being.

2.5.2.2 Applying the Dimensions of Ethics of Care

The ethics of care can be understood through several dimensions, including attentiveness, responsibility, competence, and responsiveness. These dimensions guide caregivers in providing holistic and compassionate support to individuals like Rahul.

Figure 2.3 Application of the Dimensions of the Ethics of Care to the Case Study



Source: Researcher's design adapted from Tronto (2013)

Attentiveness: The first dimension involves being attentive to Rahul's needs and circumstances. Caregivers must actively listen to his experiences, fears, and aspirations. This attentiveness allows caregivers to understand the unique challenges Rahul faces in his battle with alcohol use disorder. By creating a safe and open environment (crucial for building trust), caregivers can encourage Rahul to share his feelings.

In this initial phase, caregivers focus on understanding Rahul's situation. They engage in active listening, asking open-ended questions to explore his feelings about alcohol use and its impact on his life. This phase is crucial for establishing a strong foundation of trust and rapport.

Taking Care Of: Once caregivers have a clear understanding of Rahul's needs, they move into the taking care of phase. This involves developing a personalised treatment plan that incorporates both conventional and Ayurvedic approaches. Caregivers may recommend therapy, support groups, and Ayurvedic treatments such as Abhyanga (oil massage) and Shirodhara (pouring oil on the forehead) to promote relaxation and emotional healing.

Care-Giving: In the care-giving phase, caregivers actively implement the treatment plan. They provide ongoing support, monitor Rahul's progress, and make necessary adjustments to the plan based on his feedback. This phase emphasises the importance of collaboration, as caregivers work alongside Rahul to ensure he feels supported and empowered throughout his recovery journey.

Care-Receiving: Finally, the care-receiving phase focuses on Rahul's experience as a recipient of care. It is essential for caregivers to be sensitive to his feelings and reactions to the treatment. Encouraging open communication allows Rahul to express any concerns or challenges he faces, ensuring that he feels heard and validated. This phase reinforces the idea that care is a two-way relationship, where both caregivers and recipients contribute to the healing process.

Responsibility: Caregivers have a moral responsibility to support Rahul in his recovery journey. This includes recognising the impact of addiction on his life and the lives of those

around him. Caregivers should take the initiative to provide resources, information, and emotional support. This responsibility also extends to involving Rahul in the decision-making process regarding his treatment, ensuring he feels empowered and valued.

Competence: Competence refers to the caregivers' ability to provide effective and informed care. In Rahul's case, this means understanding the complexities of alcohol use disorder and being knowledgeable about various treatment options. Caregivers should be well-versed in both conventional and alternative approaches, including Ayurvedic practices, to offer a comprehensive treatment plan that is tailored to Rahul's needs.

Responsiveness: Responsiveness involves adapting to Rahul's evolving needs throughout his recovery process. As he progresses, caregivers must remain flexible and responsive to any changes in his condition or circumstances. This may include adjusting treatment plans, providing additional support during challenging times, and celebrating milestones in his recovery journey.

2.5.2.3 Applying Ayurveda as a Treatment Model for SUD

Identifying Dosha Imbalance: In Ayurveda, substance use disorders can be linked to imbalances in the doshas (Vata, Pitta, and Kapha). For Rahul, excessive alcohol consumption may have aggravated his Vata dosha, leading to anxiety, restlessness, and emotional instability. An Ayurvedic practitioner would assess his constitution and identify the specific dosha imbalances contributing to his addiction.

Personalised Treatment Plan: Based on the assessment, a personalised treatment plan would be developed. This may include dietary recommendations to pacify Vata, such as warm, nourishing foods and herbal teas. Additionally, Ayurvedic herbs like Ashwagandha and Brahmi could be introduced to support mental clarity and reduce anxiety.

Therapeutic Practices: Incorporating Ayurvedic therapies such as Abhyanga (oil massage) can help Rahul relax and rejuvenate his body. The warm oils used in the massage can soothe the

nervous system and promote a sense of well-being. Shirodhara, where warm oil is poured on the forehead, can further calm the mind and alleviate stress. Nasya (nasal therapy) may also be recommended to clear the sinuses and enhance mental clarity.

Mindfulness and Meditation: Ayurveda places great emphasis on the mind-body connection. Encouraging Rahul to practice mindfulness and meditation can help him develop greater self-awareness and emotional regulation. Techniques such as Pranayama (breath control) can also be beneficial in managing cravings and promoting relaxation.

Community and Support: Ayurveda recognises the importance of community in healing. Encouraging Rahul to engage with support groups or community wellness programmes can provide him with a sense of belonging and shared experience, thus reinforcing his commitment to recovery.

By integrating the dimensions and phases of the ethics of care with Ayurvedic principles, we create a comprehensive approach to Rahul's recovery from alcohol use disorder. The ethics of care emphasises the importance of empathy, relationships, and long-term support, while Ayurveda offers a holistic framework for understanding and treating addiction through balance and personalised care. Together, these perspectives foster a nurturing environment that empowers Rahul on his journey to healing and well-being.

The ethics of care as theoretical framework is appropriate for the study as it is centred around care that resonates with the principles of Ayurveda, which focuses on holistic care. Thus, Ayurveda as a holistic approach may alleviate many symptoms by restoring constitutional balances and promoting a state of behaviour by using techniques such as yoga, meditation and purification as these offer a traditional manner of restoration. This is in contrast to Western modalities which contribute to the physical and spiritual dimensions of recovery, for example the 12-step program.

Ayurveda's potential within SUD has been limited due to selective use and appropriation. It

appears that certain aspects of the approach are used which hamper the understanding and effectiveness of the holistic principles as a whole.

It seems that Ayurveda is not merely a technique but is a versatile tool' due to its focus on balancing essential energies and its cost-effectiveness in health maintenance. Therefore, it may be said that within the spectrum of social work intervention, Ayurveda can be a reliable and resourceful method.

As a social work practitioner exploring Ayurveda within this context, it is worth recognising the potential towards preventative measures related to the holistic goals and principles enforced in treatment with the philosophy of the matrix and 12-step programmes.

2.6 Conclusion

SUDs are seen as a universal challenge within Africa and its prevalence is obvious. The impact of substances is adversely affecting individuals, families and communities. The rapid growth of the demand for accessibility and treatment of SUD is an ongoing challenge for professional care givers

To understand SUDs, the care giver should understand that thinking patterns, behaviour and actions are altered by dopamine release. While there is a myriad of reasons for dependence, dependency often seem to stem from the need to belong, a distorted sense of self and a desire for an escape towards euphoric recall.

Exploring the level of substance use revealed the difference between the behavioural process and substance use itself. Furthermore, investigation of the physical and psychological aspects of dependency such as craving and instant gratification revealed that the increase in withdrawal leads to the increase in tolerance for more substances and greater dependency.

The addictive cycle, from the initial use to relapse, tends to reveal the complexity of the using and dependency, and involves phases such as binge/intoxication, withdrawal/negative affect and preoccupation/anticipation. These phases are considered within the five stages of the cycle which include initial use, abuse, tolerance, dependency and relapse.

Social work intervention plays a significant role in addressing SUDs, especially through the approaches and strategies used to support individuals and their families. The nature of interventions includes biopsychosocial and risk assessments, micro and mezzo intervention, family and individual therapy, support planning and relapse prevention. Also, the use of social work theories such as person-centred, cognitive behavioural, narrative and solution-focused therapy within the treatment of SUDs tends to reconstruct patterns of identity, thinking and behaviour and thereby enable a level of autonomy and self-actualization.

Treatment models such as the 12-step model and the matrix model enable a structured approach to treatment to prevent relapse by utilising in-patient and out-patient services according to the preferences and needs of the individual.

Social work interventions enable a spectrum of theory, approach and modalities that addresses the complexity of individualised needs within substance abuse. These interventions foster the care and facilitation of support within the recovery process.

Ayurveda is a holistic approach that encourages a sense of empowerment within the spectrum of social work intervention for SUDs by offering traditional wisdom while utilising modern therapeutic principles towards the guidance of comprehensive recovery and optimal individual well-being. For this reason, this modality was chosen for the study. A systematic review was done as there is an absence of research on the use of Ayurveda in social work in general, and in SUDs from a social work perspective in particular.

The next chapter presents the research methodology that was employed to facilitate this systematic review research study.

CHAPTER THREE

SYSTEMATIC REVIEW

3.1 Introduction

The previous chapter conceptualised and contextualised the study by presenting the literature on SUDs, the Ayurvedic treatment model, and the selected theoretical framework and ethics of care. This chapter presents the rationale for selecting a Systematic Review (SR) and how it was used in this study as a methodological framework. The steps taken in conducting the SR, including the formulation of research questions, search strategy and criteria for study selection, are presented. The aim of this SR was to provide valuable insights on the integration of Ayurveda into Westernised treatment frameworks for SUDs whilst being guided by the ethics of care.

3.2 Research Paradigm

A paradigm is a philosophical position that is rooted in theories, assumptions and ideas by which researchers understand phenomena and examine the methodological components of their research when choosing the methods for data collection and analysis (Creswell, 2014). A paradigm is thus the framework of the theories and practices of a discipline and is used to create the research plan (Denzin & Lincoln, 2018). The research plan for this study was influenced by the researcher's view of social reality. This view of a researcher's social reality is referred to as ontology (Leavy, 2017).

Ontology in research is the philosophical study of being (Leavy, 2017) and what can be known about it when captured through research (Taylor et al., 2016). This study was based on the researcher's ontological assumption as a social worker whilst employed in the field of SUDs. The researcher's experience has led to the assumption that social work intervention for persons with SUD (as well as their families) is an expanding field that generates evidence-based knowledge critical for advancing and experimenting with different treatment modalities. Her assumptions also include the idea that Westernised modalities for the treatment of SUDs are favoured above alternative modalities. It must be noted that the researcher does not support one

over the other but is of the opinion that a balance can be created for both; this belief is based purely on the researcher's exposure and experience of knowledge building as a social work practitioner in the field of SUDs.

Epistemology in research is the philosophical framework that determines how researchers gather knowledge, and this includes validity, scope, methods and sources of knowledge (Leavy, 2017). In this study, the researcher's epistemological assumptions were based on her experience as a social worker who has worked in the field of SUDs for a number of years. Her epistemological assumptions were further shaped and influenced by witnessing the successes and failures of generic Westernised modalities in SUD treatment. She has observed the reluctance of some social workers and service users to explore alternative (to Western) modalities for SUDs. As such she wanted to study the use of Ayurveda to offer an informed alternative treatment option in social work practice.

Axiology is the philosophical study of value or ethics (Denzin & Lincoln, 2018). As a social worker the researcher upholds the values of social work regarding human rights, social justice, dignity and the worth of the client system, integrity and competence. Therefore, professional ethics and ethical conduct were foremost in the process of obtaining permission from the University of the Western Cape Social Sciences and Humanities Research Committee (HSSREC) to conduct the study. The rigour in which the SR was conducted also adds to the ethical standards adhered to in this study.

3.3 Research Methodology

Methodology in research is the decision of selecting the most appropriate action plan to obtain knowledge about a particular phenomenon (Denzin & Lincoln, 2018). In this study, Ayurveda was a treatment model for SUDs. The researcher relied on an interpretive paradigm that focussed on subjective meaning and the experience of others as used in previous studies on the topic of Ayurveda as a treatment model for addiction. In so doing the researcher endeavoured to find meaning within the social context (of the selected studies) to generate an understanding of the phenomenon of Ayurveda as a model for treating SUDs. Consistent with this theoretical

foundation, data was collected by means of selecting research studies on Ayurveda for treating addictions. The intended purpose was to understand its use from the perspective of others who have used and facilitated the Ayurveda model.

Research methodology can be stated as the systematic plan and approach that researchers use to explore their studies. It includes the theoretical framework, research design, data collection methods, and analysis techniques that manage the research process. In terms of this framework, researchers can designate approaches such as quantitative, qualitative and mixed methods (Creswell, 2014).

There are generally three research approaches. Firstly, quantitative research consists of systematic exploration through the collection and examination of numerical data. It involves statistical methods to assess hypotheses and establish patterns or relationships (Bryman, 2016). This approach is known for its independent nature yet relying on structured tools (surveys and experiments). It allows the researcher to simplify findings to larger populations (Creswell, 2014). Secondly, qualitative research focuses on understanding and being considerate towards human behaviour and experiences through non-numerical data. It explores human interpretations (Denzin & Lincoln, 2011). This approach is personal, involving methods such as interviews, focus groups and observations. It aims to capture the perception of participants (Creswell, 2014). Thirdly, mixed methods research combines quantitative and qualitative approaches with the aim of infusing the strengths of both methods with understanding (Creswell & Plano Clark, 2011). This approach involves collecting and analysing both numerical and textual data, allowing researchers to gain deeper insight on the findings (Tashakkori & Teddlie, 2010).

Quantitative research is commonly used in fields of psychology, health sciences and social sciences to measure variables and assess causal relationships (Field, 2018), whilst qualitative research is valuable in fields like sociology, psychology, anthropology and education, and understanding context and complexity (Mason, 2002). Mixed methods, on the other hand, tend to be used more often in health research, programme evaluation and social sciences, where questions require multiple perspectives (Johnson & Onwuegbuzie, 2004). Thus, each approach

has its own strengths and weaknesses, and the choice often depends on the research questions, objectives and the nature of the phenomenon being studied. Within this research, qualitative research was chosen to understand the complexity and perspectives in terms of exploration, detailed data, flexibility and the importance of human experience.

Qualitative research is exploratory, and this makes it suitable for studies where there might be rare knowledge of the topic. This enables researchers to generate hypotheses and develop theories based on participants' perspectives. This is crucial in understanding the context of human behaviour (Denzin & Lincoln, 2018). It also enables detailed data that provides insight into participants' thoughts, feelings and motivations. This depth of understanding is often lost in quantitative research, which typically focuses on numerical data and statistical analysis (Braun & Clarke, 2021).

Qualitative interviews tend to reveal the complexities of client's experiences in certain settings, which inform better practices and policies. This research approach is more flexible than quantitative designs, allowing researchers to adapt their methods as the study progresses. This ability to adapt is beneficial when exploring social dynamics or when unexpected themes emerge during data collection (Flick, 2018). Thus, qualitative research acknowledges the personal nature of human experience and the importance of perspective, allowing researchers to capture the diversity of perspectives and experiences. This is crucial if they are to understand social issues in a holistic manner (Mason, 2018).

The choice of a qualitative approach is also influenced by epistemological considerations, which explore the nature of knowledge and how it is attained. It is often associated with constructivist or interpretivist epistemologies; these posit that knowledge is constructed through social interactions and could be context- dependent. This viewpoint conflicts with positive epistemologies, but underpins quantitative research, emphasising objectives and generalisation (Guba & Lincoln, 1994).

In qualitative research, researchers play an active role in the knowledge structure process and engage with participants to create understanding. Crucially, this aspect captures the core of

human experience and recognizes the influence of context. Thus, the research method contributes to a better understanding of the human social experience by highlighting participants' voices and perspectives (Charmaz, 2014). Furthermore, the qualitative research approach offers a valued method for exploring social issues and understanding human experiences. Its exploratory nature, emphasis on rich contextual data, flexibility and alignment with epistemologies make it a powerful tool for gaining in-depth understanding and insight and, whilst mixed methods and quantitative approaches have their own merits, the qualitative approach is particularly suited for this study as it prioritises understanding over measurement (Mason, 2018).

In this study, the researcher opted for a qualitative approach for “Ayurveda as a treatment model in SUDs from a social work perspective”, as the topic is under-explored, and a holistic understanding of this phenomenon would best be facilitated by using a SR methodology.

3.4 Definition of A Systematic Review (SR)

The SR is defined as a methodical approach that is often used to explore and extract evidence on any specific topic or research question. It is characterised by a structured method that includes a defined objective, a systematic search strategy, a criterion for study selection, and extraction of data (Higgins & Green, 2011). The aim of this approach is to limit the bias and provide a source of existing, reliable literature on a phenomenon (Wright et al., 2016). Therefore, the process of a SR usually begins with the formulation of a clear search question, often framed by using the Population, Intervention, Comparison, Outcome (PICO) format which helps the researcher focus on the specific aspects of the topic (Baumeister, 2013). In so doing, researchers conduct an in-depth search using multiple databases to identify any relevant studies, using inclusive and exclusive criteria to ensure that the studies take the requirements or standards into consideration (Siddaway et al., 2019). This defined search process is essential for capturing the spectrum of available evidence and reducing the risk of selection bias (Trickey et al., 2012).

Once the relevant studies are identified, the next step involves critical appraisal, where each study is evaluated for their relevance to the research question(s) (Garcia-Doval, 2017). The use

of a critical appraisal tool is important to ensure the reliability and conclusions of the findings.

The data extracted from the selected studies are then integrated; this may involve qualitative or quantitative methods and include meta-analysis when appropriate (Sacket, 1996). Once integrated, the data provides an in- depth summary of the evidence in which patterns, inconsistencies and gaps in the literature are highlighted (Fineout-Overholt, 2008).

The use of SRs is valuable in many fields, as it ensures that clinical guidelines and policy decisions are adhered to by providing evidence (Petrie et al., 2003). It identifies areas where further research may be necessary and therefore guides the path of future research (Aveyard, 2022). When these guidelines are acknowledged and adhered to, such as those set by Preferred Reporting Items for SRs and Meta-Analyses (PRISMA), the researcher can ensure and improve transparency and reliability in their review; this contributes to the advancement of literature and knowledge in the field (Higgins & Green, 2011).

An evaluation of the definition shows that the SR is a crucial part of research since it is a methodology that collects, evaluates and integrates evidence to provide answers to a research question. This structured approach was particularly important in this study as it encouraged reliability of the existing literature and findings relating to the use of Ayurveda as a treatment model for SUD. It was also useful as a guide for future research.

3.5 Rationale for Adopting a Systematic Review (SR)

SRs are adopted for various reasons, primarily due to the need for in-depth, rigorous, unbiased and comprehensive integration of existing literature. This methodology is particularly valuable in fields such as healthcare, psychology, education research and other fields where evidence-based practice is paramount (Deeks et al., 2023; Laher & Hassem, 2020; Newman & Gough, 2020).

The most common aspects in terms of the reasons adopting a SR include minimising bias,

comprehensive evidence integration, guiding clinical practice, facilitating research transparency and reproducibility, addressing research gaps, and providing a framework for meta-analysis (Khan et al., 2003). The latter aspects were exactly the reasons that motivated the selection of a SR in this study. These will be described next.

3.5.1 Minimisation of bias

SRs are designed to minimise bias through a structured methodology that is inclusive, to predefined criteria for study selection. This usually conflicts with traditional narrative reviews, which are often influenced by the authors' subjective preferences (Khan et al., 2003). As can be seen from the literature reviewed (Chapters 2 and 4), there are not a lot of studies focusing on the use of Ayurveda as a treatment model for SUDs. As such, the researcher needed to have a clear method for the selection of studies that would answer the research aim, questions and objectives. Therefore, enabling explicit methods for identifying, selecting and appraising studies ensured that the evidence found within the existing literature was comprehensive and reliable. This systematic approach is crucial in many fields, where biased interpretations may lead to ineffective clinical practices (Higgins & Green, 2011).

3.5.2 Comprehensive evidence integration

An advantage of SRs includes the ability to integrate a multitude of studies on a specific topic. This descriptive integration is essential in fields where research findings may be inconsistent or contradictory (Pang et al., 2004). During the literature review on the topic, the researcher found some inconsistencies relating to the feasibility of Ayurveda as a treatment model for addictions. In Chapter 2, there are arguments in favour of Ayurveda both as a stand-alone treatment option and its complementary use with Westernised models. The researcher was curious about these inconsistencies and wanted to conduct a more comprehensive review of the literature so as to explore Ayurveda as an intervention for SUDs in more depth. This choice was also motivated by the fact that a SR can outsource results from various studies to provide an understanding of a relevant intervention (Pang et al., 2004). By selecting a SR, the researcher was able to identify patterns and inconsistencies in the literature that locate and highlight areas

where more research is needed, and this would result in the advancement of knowledge in the field of Ayurveda. This approach was further selected because it is useful in rapidly evolving fields where new studies are frequently published (Aveyard, 2022), such as Ayurveda treatment for SUDs.

3.5.3 Guiding clinical practice

Information regarding clinical guidelines and decision-making is significant in a SR. It provides practitioners or healthcare workers with reliable sources and understanding of existing literature and evidence. This aids them in making informed choices about clients and their care (Fineout-Overholt, 2008). SRs can evaluate the effectiveness of treatments for any specific condition by helping clinicians or practitioners choose the relevant and appropriate interventions necessary for their clients. In the context of this study, the SR aims to gain a better understanding of Ayurveda as a treatment option for substance use disorders (SUDs). By systematically analysing the existing literature on Ayurvedic practices, the review sought to elucidate how these interventions can be integrated into contemporary treatment frameworks. The use of this method within a SR enhances the credibility of the findings, making it more effective for clinicians and practitioners to implement evidence-based practices (Siddaway et al., 2019). This integration may work towards improving the outcome of client's treatments and ensuring that all decisions are grounded by available resources and existing evidence (Aveyard, 2022).

3.5.4 Facilitating research transparency and reproducibility

Transparency is an important and ethical part of research. It is significant in SRs as it requires researchers to openly document their methods and process. This allows other researchers to explore the existing evidence and gather further studies on the topic (Garcia-Doval, 2017). In addition, the understanding and use of guidelines such as PRISMA (see Figure 3.2), allows SRs to be reproduced (Higgins & Green, 2011). In this study, the researcher was able to ensure the credibility of the findings through the verification of others (the supervisor and critical reader) and by providing an authentic and detailed account of the process.

3.5.5 Addressing research gaps

SRs are significant in identifying gaps in literature. By means of integration, researchers can pinpoint where research may be lacking or where further exploration may be required (Trickey et al., 2012). This is valuable in fields such as psychology and social work, specifically in addiction where new studies are continuously developing.

SRs help clarify the evidence and guide future efforts to research. They may reveal any inconsistencies in the research findings in terms of previous studies, which enables other researchers to conduct new research to address those gaps. It may drive research agendas to ensure the relevance of future studies and highlight the areas where research is lacking or uncertain (Aveyard, 2022).

As mentioned in Chapter 1, regarding the rationale for the study, there is a dearth of research on Ayurveda as a treatment model for SUDs from a social work perspective, hence the researcher embarked on this exploratory study.

3.5.6 Providing a framework for meta-analysis

When appropriate, SRs can include meta-analysis. This is a statistical technique that combines the results of multiple studies to produce a more precise estimate of the effect of an intervention or exposure (Khan et al., 2003).

Meta-analysis enhances the power of findings by increasing the sample size and provides a clearer understanding of the overall evidence. This integration is particularly valuable in fields where individual studies may have small sample sizes with inconclusive results (Khan et al., 2003). Conducting meta-analysis helps distinguish SRs from the common and traditional narrative reviews (Khan et al., 2003).

Furthermore, SRs are used to address specific clinical questions and to integrate evidence-

related interventions, outcomes and methodologies. For example, the SR process is highlighted as a means of evaluating the effectiveness of interventions, such as the use of Ritalin in children with ADHD (Aveyard, 2022).

The structured approach allows researchers to make informed decisions about the integration of studies by considering factors such as the risk of bias and the quality of evidence (Higgins & Green, 2011). In addition, SRs allow practitioners to make grounded and informed choices that enable them to have a comprehensive overview of available literature (Fineout-Overholt, 2008).

The researcher chose to conduct a SR to minimise bias, integrate evidence, guide clinical practice, promote transparency, address research gaps, and facilitate meta-analysis. This choice was further motivated because a SR is a critical tool for evaluation interventions that informs evidence-based decision-making in various fields, including social work intervention relating to SUDs.

3.6 Important Features of a Systematic Review

The SR is essential within evidence-based research for it integrates research findings on necessary topics being discussed. It is distinguished by rigorous methods that include important features such as clearly defined research questions, systematic literature searches, a critical appraisal of included studies, data extraction and data analysis, the transparent reporting of an updated review (Khan et al., 2003; Wright et al., 2016). Thus, by adhering to these important features related to the current research topic, the researcher was able to contribute valuable insights to the study of Ayurveda as a treatment model for SUDs from a social work perspective, and identified gaps in existing literature.

The features of a SR and its application to the current study are presented next.

3.6.1 Clearly formulated research question(s)

The foundation of a SR relies on the research question. It should be specific, focused, and answerable. A well- defined question not only directs the review process but enhances the relevance of efficient policy making (Khan et al., 2003).

Khan et al. (2003) states that a SR is often characterised by its basis on a clearly formulated question and this distinguishes it from traditional reviews that might lack detail. This clarity is essential for ensuring that the review addresses a significant gap in literature and provides the necessary insight for practitioners (Khan, et al., 2003).

3.6.2 Comprehensive literature search

A SR employs an in-depth search strategy to identify the relevant studies and minimise any risk of bias (Siddaway et al., 2019). This involves identifying specific keywords or search terms, selecting appropriate databases and establishing inclusion and exclusion criteria. The importance of a thorough search cannot be overstated, as it ensures that the review captures all the required evidence, thus providing a more complete picture of the existing literature (Siddaway et al., 2019). Therefore, search strategies must be accurately documented to ensure that the reproducibility of the review is enhanced (Siddaway et al., 2019).

Detailing the searched databases and include the search terms used and the dates of the search ensures transparency, encourages the assessment of the search, and allows the research to be used by others (Moher et al., 2015).

3.6.3 Study selection process

Transparency and reproducibility are inclusive within the study selection process. A multi-step process is often used by authors to screen studies, which is illustrated by means of the PRISMA flow diagram (Moher et al., 2009). This usually outlines the number of studies identified,

screened and included, and the reasoning behind any exclusion at various stages in research (Moher et al., 2009).

3.6.4 Assessment of study quality

The RE-AIM critical appraisal tool was used because it is appropriate for extracting and synthesising properties from the selected full text studies. RE-AIM is a useful method for assessing the sustainability and efficacy of interventions (Glasgow et al., 1999). The properties are: **(1) Reach** of the intervention in terms of the intended population. This relates to the specific sample in terms of characteristics and the whether it correctly represents participants; **(2) Effectiveness** is about determining whether the desired outcomes for intervention were achieved; **(3) Adoption** relates to the extent to which interventions were facilitated or adopted by stakeholders/role players and how resources were utilised; **(4) Implementation** relates to how the intervention was carried out, costs involved, consistency, and adaption of the protocol and **(5) Maintenance** focusses on the effects/or impact of intervention (Matthews et al., 2014).

An adapted version of the RE-AIM appraisal tool (see Annexure B) was used to individually assess studies that met the inclusion criteria. This was facilitated by rating the quality of the content of the selected studies, using numerical statistics translated into percentage scores based on the five dimensions of RE-AIM (Young and Solomon, 2009).

In the study, the RE-AIM framework was used to systematically evaluate the quality of the non-randomised studies included in the SR of Ayurveda as a treatment option for substance use disorders (SUDs). Multiple reviewers (critical reader and the research supervisor) independently assessed each study to ensure objectivity and minimise bias.

The focus was put on the selection of studies to determine how well the studies defined their populations and whether they accurately represented the target group. The comparability of studies was assessed to evaluate whether the studies controlled the difficult variables that could

affect the outcomes. Finally, the outcome assessment was examined to ensure that the methods used to measure the interventions and outcomes were valid and reliable.

By applying the RE-AIM, the researcher was able to assign ratings to each study and this provided a clear indication of their methodological quality. This assessment allowed the researcher to draw more reliable conclusions about the effectiveness of Ayurvedic treatments for SUDs and highlighted areas where further research is needed to strengthen the evidence base. See Annexure C: Methodological Quality of Studies.

3.6.5 Data extraction and synthesis

A structured approach is usually required for data extraction. The SR ensures that relevant data is systematically collected from each study. It often uses standardised forms to guarantee accuracy and consistency in data collection. The synthesis of data can be qualitative or quantitative, depending on the nature of studies included.

In the case where quantitative is appropriate, researchers should assess the statistical heterogeneity among studies to determine the feasibility of pooling data (Khan et al., 2003).

In this study, qualitative synthesis was used. In so doing, the vigour of the conclusions drawn from the review were enhanced because of the selection of multiple type of studies: three quantitative studies, one mixed method study and eight qualitative studies formed the final sample.

3.6.6 Transparent reporting

In this study, PRISMA guidelines were followed as this ensured that SRs were reported transparently. The PRISMA checklist includes items that guide researchers in providing detailed information, enhancing the credibility of the review and allowing readers to critically

appraise the quality of presented evidence and literature (Fineout-Overholt and Melnyk, 2008).

3.6.7 Consideration of heterogeneity

SRs must assess the heterogeneity between studies, which is defined and referred to as the variability in study outcomes. The understanding of the variability is important in terms of determining the appropriateness of pooling data in a meta-analysis (Siddaway et al., 2019). In this study, the variables included various aspects of Ayurvedic treatments for substance use disorders (SUDs), such as the type of Ayurvedic intervention that includes herbal remedies, dietary modifications, and lifestyle changes. The researcher also examined population characteristics that included age, gender, and cultural background, to assess how these factors might influence treatment outcomes. Additionally, focus was placed on various outcome measures reported in the studies such as reduction rates of substance use, withdrawal symptoms, and overall health improvements, to evaluate the effectiveness of the interventions. The study design was another critical variable, as studies included in the research had different designs, such as cohort studies, case-control studies, and randomised controlled trials. Lastly, the duration of treatment interventions was considered as this could impact the outcomes and effectiveness of the Ayurvedic approaches.

Authors should report statistical measures and explore potential sources through subgroup or sensitivity analyses (Siddaway et al., 2019). Statistical measures and analyses are essential components of SRs, helping to measure how variable and reliable study outcomes. Subgroup analyses involve examining specific subgroups within the data to determine if the effects of interventions differ based on certain characteristics, such as age, gender, or type of intervention. However, sensitivity analyses test the stability of the results by assessing how changes in the analysis methods or inclusion criteria affect the overall findings (Siddaway et al., 2019).

In this study, the researcher facilitated these analyses by first ensuring that there was sufficient data from the included studies. The studies were categorised based on key characteristics, such as the type of Ayurvedic intervention, challenges or substance use struggles and the demographic profiles of participants. This categorisation enabled researchers to perform

subgroup analyses to explore whether certain interventions were more effective for specific populations or conditions.

For sensitivity analyses, the researcher was able to systematically identify an inclusive criterion and the analysis methods to assess how these changes impacted the overall results. For example, examining the effects of including only randomised controlled trials versus including all study designs, as well as the impact of excluding studies with high risk of bias.

The variables chosen in this study facilitated a richer understanding of the results, aiding in the identification of factors that might affect the effectiveness of social work interventions incorporating Ayurveda for substance use disorders (SUDs) without relying on quantitative measurements.

3.6.8 Updating and addressing limitations in reviews

Given the rapid growth of research, SRs are updated regularly to incorporate new literature and evidence. This ensures that findings remain relevant and reflect the current state of knowledge. Thus, many researchers establish a protocol for updating their reviews, which involves setting a timeline for regular literature assessments (Khan et al., 2003). Regular updates are particularly important in fields such as SUDs where new studies are frequently published, as they help with the maintenance of relevance and utilisation of resources for practitioners or researchers.

The researcher plans to publish the SR produced in this study and to update the review, as she will be implementing Ayurveda as a treatment option in her current practice in SUDs.

Addressing limitations of one's own study or of others' studies is not unique to SRs, and are used in scoping reviews, in literature reviews and in critiques of research findings/studies (Siddaway et al., 2019). The researcher presents the limitations in this current study (in Chapter

5), to provide a balanced interpretation of findings. Potential biases, weaknesses and gaps in literature are discussed in Chapter 5 to explore the affect it may have on the conclusions that are drawn from the review.

3.6.9 Conclusion and implications for practice

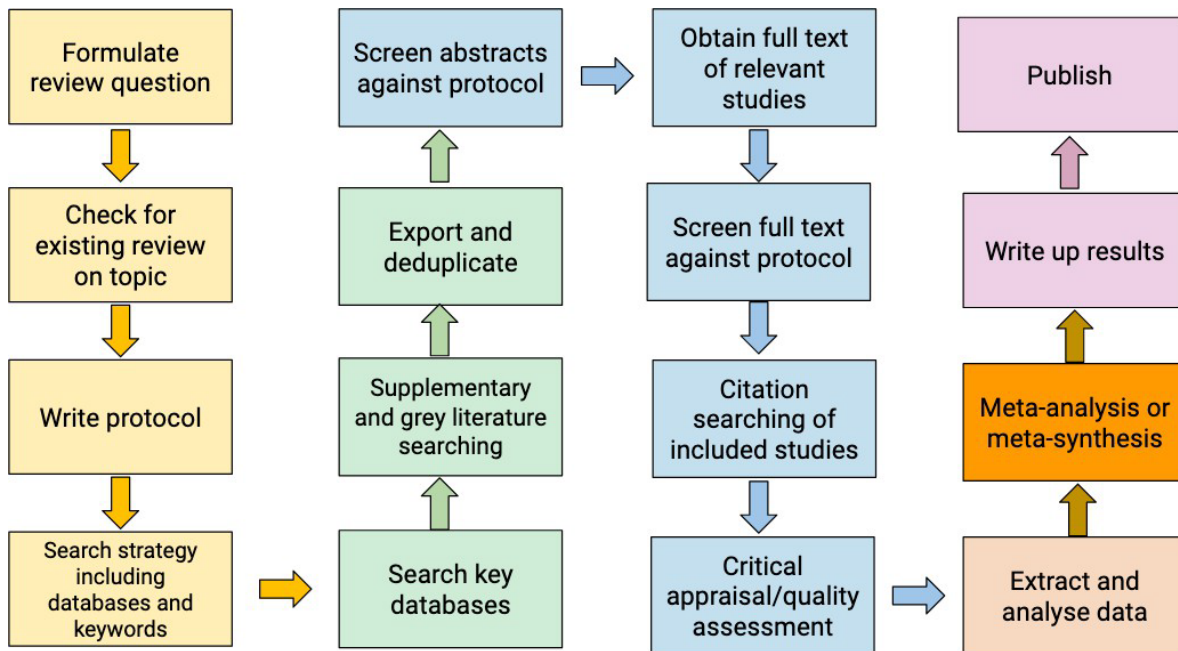
Conclusions and implications drawn from a SR are usually linked to the research question and findings. Clear and realistic recommendations based on the evidence are usually provided (Fineout-Overhold & Melnyk, 2008). The findings and practical application usually contribute towards evidence-based practice. Again, conclusions and implications for practice is a general product in all research.

The conclusions and implications for the use of Ayurveda as a treatment option for social work practice in the field of SUDs are presented in Chapter 5.

3.7 The Process Facilitated in this SRs

A SR process is conducted in a structured manner towards the aim of understanding and exploring research. The process that was followed in this study is outlined next in Figure 3.1 and explained in the subsequent sections in this chapter.

Figure 3.1 SR Protocol - Roadmap for the Current SR



Source: Adapted from Monash University Library. (n.d.)

The planning stage is the foundation to a successful SR. It defines the research question, establishes eligible criteria for studies and develops an outline for the method employed. The research question is important in terms of guiding the review process and the scope of the search (Petticrew & Roberts, 2006). In this study, the planning stage of the SR was essential for establishing a structured approach to investigate the role of Ayurveda in treating SUDs. This phase begins with formulating the research questions for this specific SR, which was driven by the increasing prevalence of SUDs and the limitations of conventional treatment methods (Sharma et al., 2022; Talcherkar, 2019).

As established in the previous chapter, this study has identified the need for a SR due to the global increase of SUDs and the limitations of Westernised treatment methods. Also established in the previous chapter, existing literature indicates significant gaps in the understanding of the effectiveness and integration of Ayurvedic methods within Westernised treatment approaches. Thus, this SR aimed to consolidate findings from various studies, to provide an overview of the effectiveness of Ayurvedic interventions in managing SUD (Sharma et al., 2022; Talcherkar, 2019). Accordingly, defining clear research questions is a critical step

in this process, as these questions guide the exploration of various dimensions of Ayurvedic treatment for SUDs. The review protocol was developed around five key research questions that address prevention methods, assessment techniques, early intervention strategies, and specific intervention methods utilised in Ayurveda for SUDs.

3.7.1 Formulation of the review questions

The development of the research questions for the SR was a critical step in guiding the exploration of the role of Ayurveda in addressing SUDs. Since this study sought to understand the use of Ayurveda as a treatment option for SUDs in social work intervention—specifically in the areas of prevention, assessment, early intervention, intervention and after care methods—a research question was composed to provide clarity for each of the five areas. Each question was specifically related to the scope of social work practice relating to services in SUDs.

To arrive at specific and answerable questions, the researcher explored the existing literature on the use of Ayurveda in addiction treatment. After months of reviewing the literature on the topic, combined with her experience as a social worker and addiction counsellor, the researcher arrived at a focused set of five questions linked to the intervention process in social work.

The review protocol that guided the exploration was developed around these five key research questions:

- What prevention methods are used in Ayurveda in addressing SUDs in adults?
- What assessment methods are employed in Ayurveda for SUD?
- What early intervention methods are utilised in Ayurveda for SUD?
- What intervention methods are implemented in Ayurveda for SUD?
- What ongoing care strategies are adopted in Ayurveda for SUD?

These questions were developed from the exploration of existing literature, gaps acknowledged in previous research and the need for a structured approach to explore the complex nature of

Ayurvedic interventions.

The primary aim of the research was to evaluate the effectiveness of Ayurvedic methods in treating SUDs. Thus, the research questions were constructed to align with this aim to provide a clear framework for the exploration and to guarantee that each question addressed a specific aspect of Ayurvedic treatment.

These questions served as a basis for the SR, allowing a structured exploration of the many dimensions of Ayurvedic treatment for substance use disorders and facilitating a better understanding of its potential contribution to addiction recovery.

3.7.2 Check for existing review on the topic

A comprehensive search strategy was established utilising a combination of the keywords presented in Table 3.1 (such as addictions, recovery, drug abuse) to ensure broad coverage of the topic (Boru, 2018). The selection of appropriate databases, also presented in Table 3.1, was determined to facilitate an extensive literature search.

A wide-ranging review of the current literature on Ayurveda and SUDs revealed a range of approaches and methodologies engaged in the field. This review highlighted the need to classify and understand the different aspects of Ayurvedic treatment, leading to the preparation of specific questions that could address these areas.

The initial literature review also uncovered significant gaps in the research, particularly regarding the lack of systematic exploration of prevention, assessment, intervention and ongoing care strategies within Ayurveda. This encouraged the need to advance questions that would target these areas, confirming that a thorough exploration was required into how Ayurveda can contribute to the management of SUDs.

Recognising that Ayurveda is essentially a holistic system of medicine that highlights the combination of physical, mental and spiritual health, the research questions were designed to include the many dimensions of treatment from prevention to ongoing care. This was done to reflect the nature of Ayurvedic practices.

Additionally, input from practitioners and supervisors in the field of Ayurveda and addiction treatment was considered in terms of the research questions. Their insights helped to improve the focus of the research and guaranteed that the questions were relevant and associated with current practices and challenges faced in the treatment of SUDs.

During this stage the researcher considered the types of studies that should be included, such as randomised controlled trial studies, case studies or qualitative research. The choice was dependent on the research explored (Moher et al., 2015). Since the researcher wanted to understand the use of Ayurveda as a treatment option for SUDs in social work intervention, it was necessary to select studies that focused on others' experience of utilising this model in addictions. As such, studies focusing on the use of Ayurveda for treating addiction were selected.

Eligibility criteria for studies were established, focusing on empirical research, reviews, and case studies that specifically addressed Ayurvedic practices for SUDs. This included studies (see Annexure C) that provided clear methodologies and outcomes related to the research questions, while excluding those that lacked empirical data or did not specifically address Ayurvedic treatments (Burns & Grove, 2003; Durrant et al., 2009).

3.7.3 Write the review protocol

The planning stage also involved the adaptation of the review protocol through a publicly accessible database as this enabled more transparency and decreased the risk of any potential bias. It became a roadmap for the SR, detailing the methods for the selection and data collection throughout the process. See Figure 3.1, the review protocol, which served as a roadmap for the current SRs. The development of a review protocol is a critical component of the SR process, as it outlines the methodology that will be employed throughout the review. This protocol

ensures that the review is conducted in a systematic, transparent, and reproducible manner (Shamseer et al., 2015).

In this study, the review protocol was crafted to address the specific research questions related to the effectiveness of Ayurvedic interventions for substance use disorders (SUDs). The protocol includes a detailed description of the objectives of the review, the rationale for focusing on Ayurveda as a treatment model, and the significance of integrating traditional practices into contemporary treatment frameworks (Rathi & Rathi, 2020; Wahab & Kalita, 2024).

The protocol also specified the inclusion and exclusion criteria for studies, ensuring that only relevant empirical research, reviews, and case studies focusing on Ayurvedic treatments for SUDs were considered. This step was essential for maintaining the quality and relevance of the studies included in the review (Burns & Grove, 2003).

Additionally, the protocol outlined the search strategy, detailing the databases to be utilised, the keywords to be employed, and the time frame for the literature search. This comprehensive approach aimed to minimise bias and enhance the reliability of the findings (Higgins & Green, 2011; Wright et al., 2016).

To further ensure the credibility of the review, the protocol was validated through feedback from academic peers and the research supervisor. This validation process contributed to the authenticity of the methodology and aligned it with best practices for SRs (Felipe & Illigens, 2018). By establishing a robust review protocol, the study provides a thorough and unbiased assessment of the existing literature on Ayurvedic interventions for SUDs, ultimately contributing valuable insights to the field of addiction treatment.

This validation process contributed to the authenticity of the methodology and aligned it with best practices for SRs

3.7.4 Search Strategy

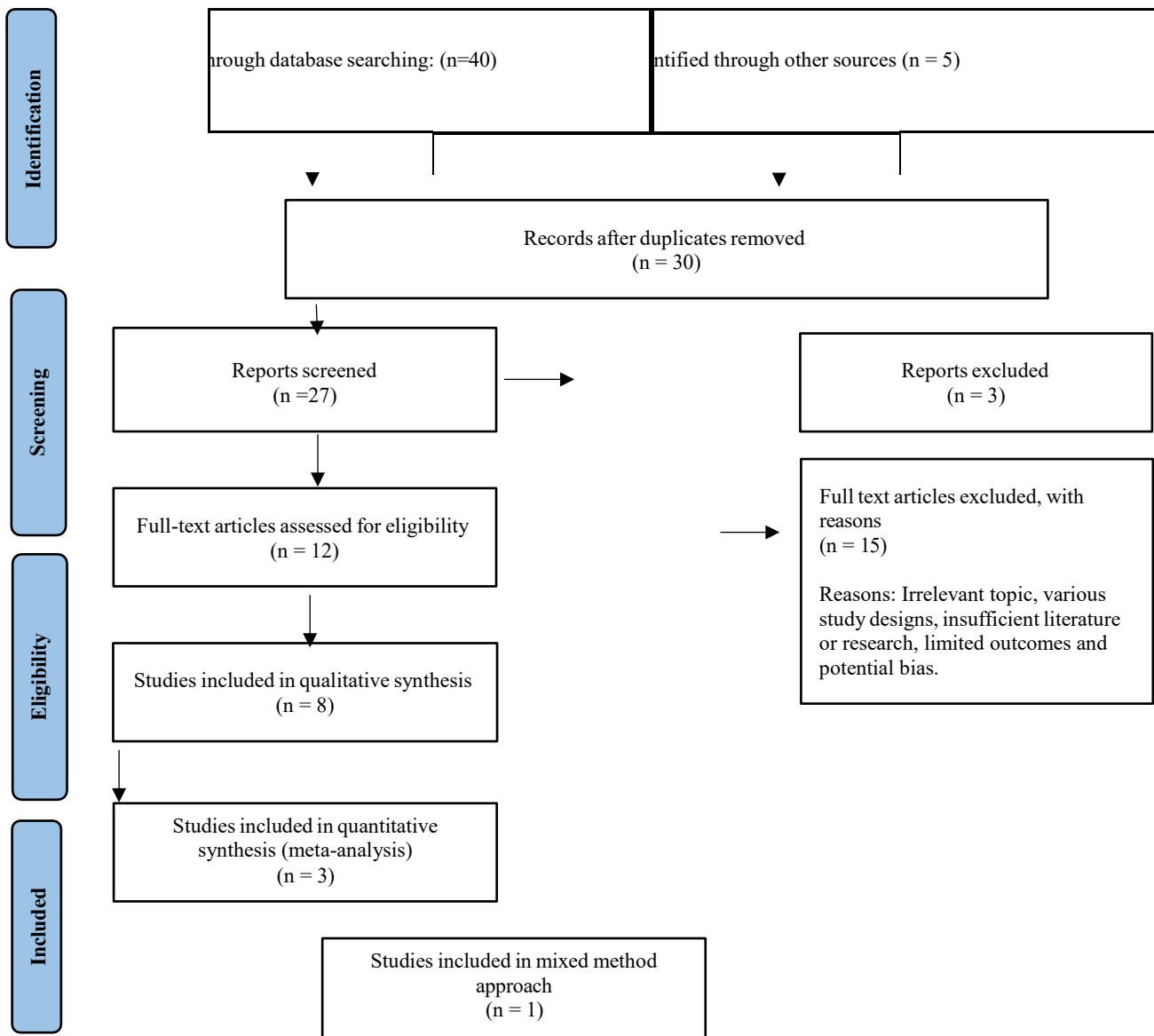
Following the guidelines proposed by Bramer et al. (2017), the researcher facilitated a systematic process and comprehensive strategy for identifying relevant studies. It involved searching multiple databases (see Table 3.1) using a combination of keywords (see Table 3.1) and controlled vocabulary terms related to the research question (Bramer et al., 2017). In addition, grey literature (Higgins et al., 2019) which included unpublished studies, conference proceedings and the use of a doctoral thesis, was also considered to decrease the risk of publication bias.

This implementation stage includes practical steps used to conduct the SR. This included the search process, study selection, quality assessment, data extraction, collection and data synthesis. These components are valuable in terms of ensuring that the review is methodologically reliable (Petrie et al., 2003).

See Annexure A: Studies Identified, Screened and Included (Yes/No). The search strategy which involved a process of screening the selected studies is reflected in the PRISMA Flow Diagram which is presented next in Figure 3.2.

The use of this tool helped the researcher to understand the assessment in terms of any bias in the study selection. Involving multiple reviewers (a colleague and the research supervisor) in the process enhanced the objectivity rather than increasing any individual bias that the researcher may have had.

Figure 3.2 PRISMA Flow Diagram



Source: Moher et al., 2009

3.7.4.1 Search key data bases

A search strategy to find relevant studies was recognised. Databases such as PubMed, Scopus, and Google Scholar were used to gather literature relating to the use of Ayurveda for SUD treatment published between 2002 and 2023. Boru (2018) asserts that using a range of search terms guarantees a wide coverage of the topic. Thus, the researcher selected four search items: “Ayurveda”, “Ayurveda for treatment of substance use disorder”, “using Ayurveda as treatment model for substance abuse intervention” and “Ayurveda for substance abuse recovery”.

The first step in conducting a review is the execution of the search strategy as outlined in the review protocol. This involves systematically searching the selected databases by using the predefined keywords and search terms (Boru, 2018).

The researcher consulted with the university librarian to access data bases and finally selected eleven sources of data, listed in Table 3.1 below. The data bases, the date of the search and the search terms that were used are presented in Table 3.1.

Table 3.1 Data Bases, Dates Searched and Search Terms

Data Base	Date Searched	Search Terms
PubMed	March 2022	“Ayurveda”
Google Scholar,	March 2022	
Elicit Scopus	June 2022	
Web of Science, Cochrane Library	June 2022	“Ayurveda for treatment of substance use disorder”
Embase	June 2022	
PsycINFO	May 2022	
CINAHL	April 2023	“using Ayurveda as treatment model for substance abuse intervention”
ClinicalTrials.gov	April 2023	
ERIC,	May 2023	
LILACS	May 2023	“Ayurveda for substance abuse recovery”
OpenGrey	July 2023	

The researcher provided a detailed description of the strategies she employed to capture the evidence of the literature search, and to ensure transparency and reproducibility. Overall, the planning stage is foundational to the success of the SR, ensuring that the methodology is authentic and aligned with established practices for SRs (Felipe & Illigens, 2018). This stage, of carefully outlining the research questions, search strategy, and selection criteria, set the groundwork for a comprehensive and unbiased evaluation of the existing literature on Ayurveda's effectiveness in treating SUDs.

The researcher explored the inclusion of supplementary and grey literature, including conference presentations and documents; however, none met the inclusion criteria. Consequently, only one PhD thesis was included, as it provided valuable insights on the topic from an insider perspective.

Initially, forty studies were identified through database searches, along with an additional five records sourced from grey literature. These included unpublished studies, conference presentations, and doctoral theses, which were considered to enhance the comprehensiveness of the literature review. The inclusion of grey literature aimed to reduce publication bias and ensure a more holistic understanding of the existing research on Ayurvedic interventions for substance use disorders.

3.7.4.2 Export and duplicate

The selection criteria for studies included empirical research, reviews, and case studies that focused on Ayurvedic treatments for SUD. Studies were required to provide clear methodologies and outcomes related to the five research questions. Exclusion criteria eliminated studies that did not specifically address Ayurvedic practices or lacked empirical data.

The study selection procedure involved a multi-step process. Initially, titles and abstracts were screened for relevance. Full texts of potentially relevant studies were then reviewed to ensure inclusivity. According to Durrant et al. (2009), this systematic approach limit biases and ensures that the selected studies are of the required quality.

Following the search, the next step is the screening of titles and abstracts to determine the relevance of the identified studies. This initial screening process helps to filter out studies that do not meet the inclusion criteria established in the protocol. Full texts of potentially relevant studies are then reviewed to ensure they align with the research questions and provide empirical data on Ayurvedic treatments for SUDs (Durrant et al., 2009).

Initially forty studies were identified through database searches and an additional five records identified through other sources (grey literature). Thirty studies remained after duplicates were removed. Of the twenty-seven studies screened (see Annexure A and C), seven were removed as they did not address SUDs but instead addressed other forms of addictions (sex, gambling and food). Fifteen full-text articles were excluded because they contained insufficient literature or research, limited outcomes and a measure of bias. Twelve full-text studies were assessed for eligibility, of which eight were finally selected as these met all the inclusion criteria.

3.7.5 Screening process

Researchers screen the titles and abstracts to unpack their relevance to the research question. Liberati et al. (2009) states that if a title or abstract does not provide enough information, it is reserved for further exploration. This could include more than one reviewer independently exploring and limiting any bias and to ensure that consistency is evident in the process (Liberati et al., 2009). After screening 27 studies, the researcher submitted the summary of the screened articles to the research supervisor who conducted an independent screening process to provide input regarding the eligibility of the 27 studies measured against the inclusion and exclusion criteria.

3.7.5.1 Screen abstract against protocol

Study selection can be defined as the screening of the studies. As mentioned the researcher developed a table of the existing studies that she had screened against the eligible criteria that were developed during the planning stage. The process was facilitated in two phases as

proposed by Liberati et al., 2009); an initial screening of titles and abstracts followed by a full-text review of potentially eligible studies.

Table 3.2 presents a summary of the selected studies.

Table 3.2 Summary of the Selected Studies

Unit of analysis	Focus of the study	Type and Year
1	Exploring holistic and alternative approaches to SUD treatments through the author’s personal experience and narrative.	Thesis, 2019.
2	Analysing the condition of SUD (alcohol abuse) regarding Ayurvedic and modern Western scientific perspectives.	Literature Review Article, 2024.
3	Exploring intervention methods for the management of alcohol withdrawal syndrome through the use of Ayurvedic practices.	Case Report, 2022.
4	Identifying and exploring the connection between eating disorder behaviour, food cravings and alcohol abuse within the framework of Ayurvedic medicine. Examining the psychiatric and neuropsychiatric conditions related to the behaviours, as well as contributing factors.	Exploratory/ Literature Review, 2023.
5	Focusing on the effectiveness of Ayurvedic treatment methods and the formulation in managing symptoms of SUDs.	Case Study, 2022.
6	Documenting the treatment and therapeutic approaches used in Ayurveda to address illnesses. This explores the holistic nature of Ayurvedic treatment, including detoxification, medication, meditation and counselling.	Case Study, 2023.
7	Exploring Ayurvedic intervention and the manner in which it addresses alcoholic dependency and withdrawals.	Case Report, 2023.

8	Exploring the assessment and efficacy of Ayurvedic modalities such as Madhuyashtyadi granules as a method for de-addiction regarding tobacco use. Exploring levels of intervention combined with Ayurvedic psychotherapy and principles of good conduct in rural India.	Study Case Report, 2021.
9	Exploring and assessing the role of homoeopathy in therapy and the management of SUDs through a SR of literature. Identifying the gaps, trends and deficiencies in research regarding homoeopathic treatments for SUDs.	SR, 2023.
10	Exploring the emphasis of various Ayurvedic principles and methods utilised to manage and prevent nicotine addiction, as well as withdrawals.	Critical Review, 2023.
11	Exploring and reviewing the role of Ayurvedic interventions regarding the management of opium withdrawal symptoms.	Critical Review
12	Emphasising the concepts and principles of Ayurveda applied within the management and prevention of nicotine and alcohol addiction.	Review, 2020.

In this phase, the researcher conducted an initial screening of all titles and abstracts in each study within the search process. This was important as it filtered out studies that did not meet the requirements or that were not relevant within the inclusion criteria. Liberati et al. (2009) suggest that this exclusion could cover aspects such as the study design, location, population characteristics, interventions and outcomes. This was indeed the case in the current study; especially in relation to participants of the study population who had other forms of addiction than/besides SUDs. Subsequently, of the fifteen full text studies reviewed, only the twelve listed in Table 3.2 were selected for critical appraisal using RE-AIM (see Annexure B).

3.7.5.2 Obtain and screen full text of relevant studies against protocol

This phase includes a more detailed examination of the full texts of studies that are in the initial screening. The criteria are applied in this phase to determine the inclusivity in the SR. This step is important as it allows more detailed information about the study's methodology, relevance and results (Liberati et al., 2009).

Various factors are assessed by researchers during this phase. Assessments include the study design, sample size, intervention details and outcomes. They also evaluate the quality of the studies, which may involve using established critical appraisal tools, and include discussions between the researcher and review team to address relevance and validity (Liberati et al., 2009).

The goal of the full-text review is to ensure that only studies meeting all requirements on the criteria are included. This approach helps to reduce bias and show the validity of the conclusions (Liberati et al., 2009).

It is important to involve multiple researchers in this process as this will reduce the risk of bias and guarantees that the selection is conducted systematically. The final selection of studies can be added in a flow diagram, such as PRISMA, to represent the number of screened studies that were included and excluded at each stage of the review (Moher et al., 2015).

The researcher liaised with the faculty librarian regarding inter library loans and pay-for-view articles. Selected articles, thesis and conference papers were evaluated for quality using the open access RE-AIM critical appraisal tool (Annexure B) as proposed by Young and Solomon (2009). The who, what, how, where, why and when questions were useful in the critical appraisal tool. Each selected article, conference paper and dissertation were awarded a percentage score. The score range for RE-AIM was as follows: 0-33% is poor, 34%-65% is satisfactory and 67%-100% is very good. A threshold score of 65% and higher (falling within or above the satisfactory range to that of very good) were selected for inclusion in the final SR. The outcomes were documented on a full text review summary sheet (Annexure C). The researcher adapted the PRISMA flow chart (Figure 3.2) as proposed by Page et al. (2021) which was used to display the results that are obtained through the appraisal process.

3.7.6 Study quality assessment

Assessing the quality of the included studies is a vital part of the process that may determine the reliability of the findings and help with the results (Higgins et al., 2019). The tools available for quality assessment of SRs are useful in determining rigour and trustworthiness, such as the Cochran Risk of Bias Tool for randomised controlled trials and the Newcastle-Ottawa Scale for observational studies (Higgins & Green, 2011) as well as RE-AIM as proposed by Page et al. (2021). Selected texts were evaluated for quality using the open access RE-AIM critical appraisal tool, and an adapted version of the PRISMA flow chart (Page et al. 2021) were used to display the results obtained through the appraisal process. For this study, the researcher opted to use the Re-AIM tool (see Annexure B and C). The value of using these tools, include that multiple researchers can individually do quality assessment. The results of the quality assessment, which can be reported with the findings, can impact the strength of the evidence and the conclusions (Petticrew & Roberts, 2006).

3.7.7 Citation searching from included studies

The selection of primary studies was finalised after applying the established criteria and procedures. Initially a total of forty studies were reviewed, providing a diverse range of insights

into the application of Ayurveda in treating SUD. After the initial screening of abstracts, 27 studies (from the 40) were fully screened. From the twenty-seven studies, twelve were chosen and categorised based on their focus areas, including prevention, assessment, interventions, and ongoing care in SUDs. The citations selected from these studies are presented in the next chapter as part of the findings.

3.7.8 Critical appraisal/Quality assessment

Once the studies were selected, a quality assessment was conducted to evaluate the methodological rigor of each included study (see Annexures B and C). This assessment was crucial for determining the reliability of the findings and involves examining factors such as study design, sample size, and the clarity of methodologies and outcomes reported. Studies that did not meet the quality standards were excluded from the final analysis.

The quality of the selected studies was assessed using established criteria, RE-AIM (see Annexure B) including methodological rigor, sample size, and the clarity of outcomes reported. In line with assertions by Compton et al. (2016), this assessment aimed to ensure that the findings presented in the review (Chapter 4) were based on high- quality evidence.

3.7.9 Extract and analyse data

Data extraction is where relevant information from the selected studies is systematically collected and organised. Data extraction includes systematically collecting relevant information from the included studies. It includes details such as study characteristics (e.g. author, year of publication, sample size), intervention, outcomes and key findings (Higgins et al., 2019).

A structured data extraction form (see Table 3.3) was developed to collect relevant information from each study. In line with suggestions by Alvi (2016) the data extraction tool contained details on study design, participant characteristics, intervention methods, and outcomes related

to SUD treatment. The data extraction was directed by the researcher and reviewed by the research supervisor to enhance consistency (Alvi, 2016).

Table 3.3 is presented next.

Table 3.3 Types of Study Reviewed

Type of study	Number of studies	Percentage from the sample	References
Empirical study	1	2%	Wahab, A., & Kalita, R. (2024). Alcoholism (Madatyaya) - A Descriptive View and its Management Through Ayurveda. <i>World Journal of Pharmaceutical Research</i> , 13(2), 380.
Autobiography	1	2%	Talcherkar, A. (2019). <i>Chasing the Guru: Transcending Addiction - An Autoethnography</i> . Saybrook University.
Case study	5	11%	<p>Sharma, A., Yadav, S., and Vishnoi, R. (2022). Ayurvedic Management of Alcohol Withdrawal Syndrome - Case Series. <i>International Journal of Ayush Case Reports</i>, 6(1), 135- 146.</p> <p>Mamidi, P. and Gupta, K. (2023) 'Food cravings, disordered eating behaviour and alcohol abuse in Bhutonmadas - An exploratory review', <i>Journal of Psychology & Clinical Psychiatry</i>, 14(1), pp. 11-17.</p> <p>Sharma, R., and Shukla, G. D. (2022). Managing Symptoms of Substance Use Disorder with Nasya and Ayurvedic Medicines: A Case Study. <i>International Journal of Ayush Case Reports</i>, 6(3), 325-333.</p> <p>Nisha, C. N., and Hegde, R. (2023). Ayurvedic management of Alcohol Use Disorder. <i>Journal of Ayurveda and Integrated Medical Sciences</i>, 8(11), 163-167.</p>

			Raj, A. S., Yadava, R. K., Rahul, N., and Arshathjyothi, P. (2023) 'Scope of Ayurvedic intervention in the management of alcohol withdrawal syndrome', International Journal of Ayurveda Research, 4(4), pp. 242-247.
Randomised control	2	17%	Rathi, R.B., Rathi, B.J. (2021). Herbal Compound for De-Addiction in Children: A Study on Madhuyashtyadi Granules. Annals of R.S.C.B., 25(1), 3388-3395. Singh, Uttam, Shweta Singh, and Hanuman Ram. "Homoeopathic Perspective in the Management of Substance Use Disorders: A SR." Journal of Complementary and Alternative Medical Research, vol. 22, no. 4, 2023, pp. 33-47, Article no. JOCAMR.101568.
Cross- sectional	3	7%	Das, K., Kumawat, D. K., Sharma, A., and Pandey, N. (2023). The role of Ayurveda in management of nicotine addiction - Critical review. Journal of Indian System of Medicine, 11(3), 169-175. Kumawat, B., Sharma, A., Kumawat, D. K., and Das, K. (2023). A critical review to understand the role of Ayurveda in management of opium withdrawal. AYUHOM, 10, 68- 73. Rathi, R. B., and Rathi, B. J. (2020). Ayurveda perspectives toward prevention and management of nicotine and alcohol dependence: a review. Journal of Indian System of Medicine, 8(1), 14-20.

Table 3.4 Data Extraction Tool

Unit of analysis	Study design	Research approach	Population	Sample Type	Sample Size	Setting	Duration
1	Autobiography	Qualitative autoethnography	Researcher	Single participant	1	Ashram, India. North Carolina, Drug Policy Alliance.	Not specified
2	Empirical study	Qualitative	Adults (18 years and older)	Stratified sampling	30	India	10- 20 months
3	Case study	Quantitative research	Single patient (21-year-old male)	Single participant	1	Outpatient department of Panchkarma at Rishikul Campus, Haridwar India	12 weeks
4	Case study	Qualitative	Adults (psychiatric and neuropsychiatric conditions)	Not specified	Not specified	Ayurvedic Medical College and Hospital, India.	Not specified
5	Case study	Qualitative	21-year-old patient with SUD	Single participant	1	Out-patient Department, Uttarakhan	3 weeks

						d Ayurvedic University, India.	
6	Case study	Qualitative	35-year-old male with alcohol use disorder	Single participant	1	Karnataka, India	Not specified
7	Case study	Qualitative	Alcohol use disorder patient	Single participant	1	Not specified	17 days
8	Randomised control	Research approach	School-going children (6-16 years) struggling with tobacco use.	Not specified	110	Zila Parishad Schools, Maharashtra, India.	3 months
9	Cross-sectional	Qualitative autoethnography	Not specified	Not specified	Not specified	Not specified	Not specified
10	Randomised control	Qualitative	10 articles 1 case series with 30 patients. 1 pilot study with 10 patients. 1 retrospective cohort study with 53 patients. 3 randomized controlled trials (RCTs) with 80, 54, and 169 patients, respectively. 3	Not specified	809	Not specified	12 months

			observational studies that included 40, 112, and 261 subjects, respectively. One comparative observational study				
11	Case study	Quantitative	Adults with opium use disorder	Convenience sample (house-to-house survey)	1200	Rajasthan	Not specified
12	Cross-sectional	Qualitative	Not specified	Not specified	Not specified	Not specified	Not specified

Table 3.3 indicates that the data extraction included details on the selected studies' characteristics, intervention methods, outcomes, and any reported effectiveness of Ayurvedic treatments for SUDs. The data extraction process was guided by the study objectives and the five research questions, ensuring that the information gathered was pertinent to the objectives of the review. A standardised data extraction form was developed based on the objectives and the research questions and this helped to maintain consistency.

It is important to test the data extraction form on a small number of studies to identify any potential issues before the full extraction (Moher et al., 2015). In this instance the researcher used a sample of eight studies to test the tool. She then shared the data with the research supervisor for independent review. At this stage there were twenty-five questions included in the Re-AIM tool. It was determined that the tool was effective in answering the research questions; however, the number of questions was reduced to the nineteen that would answer the research questions and would suffice in reaching the study objectives. This process of co-reviewing confirmed that multiple researchers and reviewers should perform data extraction to ensure that the results are reliable.

3.7.10 Meta-analysis/Meta synthesis

Data synthesis is the process of combining and summarising the findings from all the chosen studies. It includes qualitative synthesis where themes and patterns are identified, or quantitative synthesis through meta-analysis where statistical techniques are used to take results from many studies (Higgins & Green, 2011).

The decision to use a meta-analysis depends on the validity of the studies in terms of design, population, interventions and outcomes. If the studies are similar, meta-analysis can provide more accuracy in the effect size and thus increase the strength of the evidence (Borenstein et al., 2011). However, if studies are too diverse, a narrative synthesis may work better, as this allows for an easier to understand and explored (Popay et al., 2006).

To arrive at the themes and subthemes, the researcher conducted a qualitative thematic analysis of the extracted information using the steps proposed by Braun and Clark (2006).

The researcher recorded the findings at each level of the review process, describing the operational steps that were taken. Articles, conference papers and dissertations were ranked and recorded based on the total and section scores from the critical appraisal tool (Annexure B and C). In so doing, methodological rigour was obtained. Braun and Clark's (2006) methods for data analysis involve identifying, analysing, reporting patterns (themes) and interpreting various aspects of the findings. As such the researcher began by becoming familiar with the data, generating initial codes, and searching, reviewing, defining and naming themes. Next, the researcher made brief notes in a journal, describing themes that stood out or appeared interesting.

This was followed by an examination of the data for patterns/themes, and the development of codes. Next, the researcher reviewed and refined the themes by reading through the data to check whether the themes fitted the codes. The researcher then labelled the themes and provided a description for each theme. The final step was synthesising the data and drafting and producing the SR results, to compare and contrast the findings with relevant literature. Thus, data synthesis involved a qualitative analysis of the extracted information, categorising findings according to the research questions. This synthesis aims to identify patterns, themes, and insights across the studies, providing an overview of the effectiveness of Ayurvedic interventions for SUDs.

The findings are reported in a structured format in the next chapter, where each research question is addressed in detail. The implications for practitioners, researchers, and policymakers are discussed in Chapter 5.

3.7.11 Write up results

The final stage of the SR process is to report the findings according to the PRISMA guidelines. This is important as it ensures that the review is detailed and clearly articulated (Moher et al.,

2015). The report should contain detailed sections of the introduction, methods, results, and discussion. The introduction to this study was presented in Chapter 1 and expanded in earlier sections of this chapter. It provides more context regarding the topic (see Chapter 2), including the rationale and objectives (see Chapter 1 and 5). The methods section (the current chapter) outlined the planning and implementation, including the search strategy, study selection process, quality assessment, data extraction and synthesis methods used in the SR.

The process of this SR involved an in-depth detailed procedure that required careful planning, implementation and reporting. The results section in Chapter 4 presents findings of the review (in the next chapter), including the completed meta-analyses completed, while discussions in the next chapter interpret the findings in terms of existing literature, highlight limitations and suggest implications for practice and future research (Higgins & Green, 2011).

3.7.12 Reporting and Publishing the findings of the SR

The background of the review highlighted the growing interest in Ayurveda as a holistic approach to health and wellness, particularly in the context of addiction treatment within social work and clinical practice (Rathi & Rathi, 2020; Wahab & Kalita, 2024). The findings of the SR were reported in a controlled format and addressed each research question in detail. The report includes a discussion regarding the implications of the findings for social work practitioners and researchers. Also, the SR emphasised the need for further research to validate and expand upon existing evidence of Ayurvedic treatment for SUD by conducting this written thesis, writing articles on the research, and presenting the study findings at conferences and seminars.

The conducting phase of the SR involves the practical implementation of the established protocol, encompassing several key steps that ensure a comprehensive and methodologically sound evaluation of the literature on Ayurvedic interventions for SUDs. This phase is critical for synthesising existing evidence and drawing meaningful conclusions regarding the effectiveness of Ayurvedic practices in addiction treatment.

Ayurveda's emphasis on lifestyle modifications and mental health practices was posited as a potential complementary treatment for SUD (Rathi & Rathi, 2020; Wahab & Kalita, 2024). Therefore, the researcher intends to present the findings of the SR at conferences and publish them in accredited journals that focus on addictions and social work services/practice. By following this systematic approach, the conducting phase of the review aims to provide a reliable and comprehensive assessment of the existing literature on Ayurveda's role in treating substance use disorders and ultimately contribute to the understanding and integration of traditional practices within contemporary treatment frameworks.

3.8 Conclusion

A SR was used in this research to assess and explore the existing research in terms of the effectiveness of Ayurveda in treating SUDs. This was chosen to ensure that the researcher provided an in-depth and unbiased evaluation of the existing and relevant studies, thereby enabling a better understanding of the Ayurvedic practices and their role within SUD treatment.

This chapter presents a thorough framework for directing a SR aimed at evaluating the effectiveness of Ayurvedic interventions in the treatment of SUDs. The SR methodology outlined in this chapter is considered by its structured and transparent approach, essential for minimising bias and guaranteeing the reliability of the findings. It details the steps involved regarding the review process, starting with the identification of research questions that are both relevant and important in understanding the role of Ayurveda in SUD treatment. These questions guided the exploration of various dimensions of Ayurvedic practices, including prevention strategies, assessment methods, early interventions and ongoing care, and thereby provide a framework for analysis.

A significant aspect of this chapter is the development of a vigorous search strategy that encompasses a wide range of databases and literature published over two decades. This extensive search ensures that the review captures a diverse array of studies, including empirical research, reviews, and case studies that specifically focus on Ayurvedic treatments for SUDs.

The inclusive criteria are carefully defined to ensure that only studies with clear methodologies and relevant outcomes are considered, while the exclusion criteria filtered out studies that did not meet necessary standards of empirical rigor.

The chapter also highlights the importance of quality assessment in the review process. The review uses critical appraisal tools to assess the reliability of the study, a fundamental requirement for drawing conclusions about the effectiveness of Ayurvedic interventions. This assessment not only increases the trustworthiness of the findings, but it also provides insights into the strengths and limitations of existing literature.

Moreover, the chapter highlights the combined nature of the review process which involves the engagement with peers and practitioners in the field. This collaboration is important for refining research questions and guaranteeing that the review addresses real-world challenges faced by individuals with SUDs.

The validation of the review procedure through feedback from experts (the research supervisor and a colleagues) further strengthens the method and legitimacy of the review thus aligning it with the best practices in SRs.

The chapter dives into the synthesis of data, where qualitative analysis is used to identify patterns and themes across the studies. This synthesis not only provides an overview of the effectiveness of Ayurvedic interventions but also facilitates a deeper understanding of how these practices can be combined into modern treatment frameworks for SUDs. Consequently, the findings revealed valuable insights into the potential of Ayurveda to accompany Westernised treatment approaches, thereby encouraging a more holistic and client-centred strategy for addiction recovery.

Furthermore, this chapter serves as an important component for the analysis of Ayurvedic interventions in the framework of SUD treatment. It points to the importance of a systematic and evidence-based approach for exploring alternative therapies and advocates the combination

of holistic practices within conventional treatment paradigms.

The chapter has displayed the need for ongoing research to validate and expand upon the existing evidence regarding Ayurvedic treatments for SUDs.

This SR aims to contribute to the development of more effective and in-depth strategies for addressing SUDs, ultimately improving the quality of care of individuals in recovery by fostering a dialogue between traditional and Westernised therapeutic approaches.

CHAPTER FOUR

RESEARCH FINDINGS

4.1 Introduction

The preceding chapter outlined the research methodology adopted for this study, detailing the strategies and approaches employed to gather and analyse data. This chapter presents the findings of the study.

This chapter begins with a discussion of the results and the analysis obtained from the various studies, alongside the use of critical appraisal tools. This does not only present the actual raw findings but does also offer an exploration of implications and the significance of literature and necessary methodologies. Comparison of the research outcomes is conducted with prior studies and critical appraisal tools to seek and establish an understanding of the contributions to the existing studies.

The chapter's focus shifts to the examination and analysis of publications from the research findings. It analyses the significance of these publications and explores their content, methodology and research questions. Through unit analysis and scrutiny, this section aims to identify and explore the relationships between certain research outcomes and the research questions. This will illuminate the broader implications and significance of the findings, thus allowing a deeper understanding of their relevance and impact.

The chapter places an immense emphasis on the assessed validity and identification of potential threats towards the integrity of the research process. This chapter provides evidence of the methodological accuracy in terms of trustworthiness and reliability of findings; it also demonstrates the robustness of research design, data collection methods and analysis techniques used to generate findings.

Furthermore, this chapter serves as a bridge between research methodology and the conclusions

that could be drawn from the study. It aims to offer a detailed insight into the findings, implications thereof, and the measures taken to ensure validity and integrity within the research. By presenting a comprehensive view, the chapter provides knowledge and understanding within a broader academic realm that is needed to critically evaluate the contributions and significance of the study.

4.2 Discussion of the Results and Analysis

Twelve studies on Ayurveda treatment for SUD were identified. These cover different study areas such as empirical study, autobiography, conceptual analysis articles and books. These were reviewed by analysing context, research questions, and empirical confirmation of the result. The studies covered research topics relating to the complexity of addiction as a phenomenon and its biological factors towards recovery and treatment; Ayurveda and various modalities relating to treatment; the use of Ayurveda in general using the qualitative research approach; and various research methods which were discussed in Chapter 3. The studies were categorised into the following five main groups:

- Prevention methods in Ayurveda
- Assessment methods in Ayurveda
- Early intervention methods in Ayurveda
- Intervention methods in Ayurveda
- Ongoing/after care in Ayurveda

Of the twelve studies, three of them, namely Kumawat et al. (2023), Das et al. (2023), and Rathi and Rathi (2020) (see Annexure A), focused on the critical review and understanding of the role in terms of Ayurveda (Kumawat et al., 2023) and the general application. This was done to determine the variations related to health and wellness (Wahab and Kalita, 2024), and to explore the intersecting factors, implications and findings of the relationship between alcoholism, food cravings and eating disorder behaviour (Mamidi and Gupta, 2023).

Other studies focused mainly on methods of prevention, assessment, early intervention and ongoing care. Two studies, namely Talcherkar (2019) and Singh et al. (2003) presented

Ayurveda in the medical field. The remainder of the articles, namely, Das, et al. (2023) and Sharma, et al. (2022) cover a range of topics related to Ayurveda such as prevention management of nicotine (Das, et al., 2023) and management of alcohol withdrawal syndrome (Sharma, Yadav and Vishnoi, 2022). The article by Rathi and Rathi (2020) provides insight into Ayurvedic perspectives towards the prevention and management of nicotine and alcohol dependency. It discusses various principles and practices in Ayurveda that can be applied to de-addiction including lifestyle changes, replacement therapy, psychotherapy and the importance of communal support.

Sharma and Shukla (2022) highlight the role of yoga, meditation and ethical principles in addressing addiction. Additionally, the emphasis is on the need for a collaborative effort from various stakeholders to help individuals overcome psychotropic drug dependency. The article is similar through the use of a case study, and the treatment approaches used in Ayurvedic medicine (Sharma & Shukla, 2022).

Rathi and Rathi's (2021) study provides information on the use of a herbal compound "Madhuyashtyadi granules" for de-addiction in children suffering from tobacco addiction. The study includes the formulation of these granules, assessment criteria used, methods of awareness, education, counselling, inclusion and exclusion criteria, follow-up procedures, withdrawal effects and the use of non-pharmacological interventions. The study evaluates the effectiveness of this herbal compound in reducing the consumption and cravings of tobacco in children, with the focus on ethical considerations such as confidentiality, anonymity and withdrawal.

Lastly, the study by Nisha and Hegde (2023) correlates to that of Rathi and Rathi (2021) as it focuses on the Ayurvedic management of alcohol. In the case study of a 35-year-old, the history of the present illness, past illness, family history, premorbid personality, mental state examination, treatment protocols, and the outcome before and after treatment are discussed.

Additionally, the article mentions the use of Ayurvedic treatments such as Snehapana, Virechana, Basti, Nasya and others in managing substance use disorders (alcoholism). This also

stresses the impact of alcoholism, the role of complementary and alternative medicine in treating substance use disorders, and the importance of understanding alcoholism within Ayurvedic treatment.

The studies provide the exploration of the Ayurvedic role in terms of addressing health issues such as nicotine and alcohol dependency. The researchers of the selected studies have explored critical reviews, preventative measures, and management strategies related to substance use disorders.

The emphasis on psychotherapy, lifestyle changes, herbal interventions and family support highlights the holistic approach advocated by Ayurveda in tackling substance use disorders (SUD). These studies collectively contribute to a deeper understanding of Ayurvedic principles and their application in promoting overall well-being and addressing SUDs.

Next, the characteristics of the studies are described, followed by a summary and description of each of the included studies identified in the main categories.

4.3 Overview of Studies Publication Year

The limited number of publication volumes for each year is due to the relatively uncommon practice of Ayurveda since (as discussed in Chapter 2) it is mainly used as a complementary approach rather than the primary approach in health sciences. Table 4.1 provides a detailed breakdown of the studies reviewed from 2019 to 2024.

Table 4.1 Year-wise distribution of selected studies

Year	2019	2020	2021	2022	2023	2024
Studies	1	1	1	2	6	1

The type of studies reviewed encompass a diverse range: these include empirical studies, autobiographical research reports, and case studies. Table 4.1 provides a detailed breakdown of the studies reviewed from 2019 to 2024. Among these, the autobiographical studies constituted the largest category, indicating an interest in personal narratives and experiences within the research community.

The reviewed studies included eight qualitative studies that emphasised in-depth, descriptive research methods and provided rich, contextual insights. Additionally, there was one mixed-method study that demonstrated an integrated approach of qualitative and quantitative data, offering a more comprehensive understanding of the research questions.

Most of the studies were authored by practitioners actively engaging in the field of substance use disorders (SUD) or those conducting experimental research on Ayurvedic care and treatment. The practitioner involvement highlights the practical application and direct relevance of the findings within real-world settings.

Nine of the studies examined the application of Ayurveda in treating substance use disorders (SUD) and illustrated the research focus on alternative and complementary medicine approaches, namely: Sharma et al. (2022), Wahab and Kalita (2024), Mamidi and Gupta (2023), Nisha and Hegde (2023), Rathi and Rathi (2020), Sharma and Shukla (2022), Talcherkar (2019), Singh et al. (2023), and Rathi and Rathi (2021).

The remaining three studies (Kumawat et al., 2023; Das et al., 2023; Rathi & Rathi, 2020) explored the Ayurvedic treatment within the medical field, thereby indicating an interest in the integration of traditional practices.

Overall, the studies reflected a growing exploration of research dedicated to understanding and validating the role of Ayurveda in modern medical practice, particularly in the treatment of SUD. The predominant autobiographical studies offer personal insight-enriching data by providing a perspective on how individuals experience and perceive the benefits of Ayurvedic treatment.

Eight out of the twelve studies were journal articles (Sharma et al., 2022; Wahab & Kalita, 2024; Mamidi & Gupta, 2023; Nisha & Hegde, 2023; Rathi & Rathi, 2020; Sharma & Shukla, 2022; Singh et al., 2023; Rathi & Rathi, 2021), two (Kumawat et al., 2023; Das et al., 2023) were critical review papers, and one (Talcherkar, 2019) was an autobiographical master's thesis.

The diverse collection of articles and studies focused on the management of SUD through Ayurvedic modalities. A significant portion of the literature studies reviewed fall under case studies and randomised control studies.

Wahab and Kalita (2024) was the only empirical study reviewed, indicative of the limited data available. The study focused primarily on a descriptive view of alcoholism and the management of it through Ayurveda. On the other hand, Talcherkar's (2019) autobiographical master's thesis highlighted a personal narrative approach to understanding addiction and its transcendence.

The case studies made up a significant portion (five of the twelve studies) of the review. The five case studies provided detailed insight into individual cases or series of cases (Sharma et al., 2022; Sharma & Shukla, 2022; Rathi & Rathi, 2021; Nisha & Hegde, 2023 and Mamidi & Gupta, 2023). These studies suggest a focus on practical, real-world applications of Ayurvedic treatment.

Two of the randomised control studies (Rathi & Rathi, 2020; Das et al., 2023), reflected the importance of experimental and controlled study designs in the evaluation of the efficacy of Ayurvedic interventions for substance use disorders and management.

Three cross-sectional studies (Kumawat et al., 2023; Singh et al., 2023; Rathi & Rathi, 2020) provided observational data on the role of Ayurveda in nicotine and opium addiction management. These three studies contributed to the understanding of the characteristics and prevalence of SUD in populations.

The review included a combination of study types that reflect a multifaceted approach to understanding and managing SUD through Ayurveda. The higher number of case studies and randomised control indicates a focus on both detailed individual cases and experimental designs that suggests a balance between practical applications and evidence-based evaluation. The presence of critical reviews and the autobiographical thesis highlights the importance of reflection and a personal narrative alongside the existing traditional research studies.

Furthermore, the reviewed studies highlight the diverse methodologies applied in terms of understanding and managing SUDs within Ayurvedic practices, with the emphasis on case studies and randomised controlled trials. This varied range of studies ensures a larger evidence base but also highlights the need for more empirical research to ensure the strengthening of foundational data.

4.4 Units of Analysis

Several units of analysis were identified to provide a summary of the included articles. These units are the basis of the data analysis. The analysis was done by identifying themes that emerged from each selected study. The title, abstract, keywords, research methods, and conclusion of each selected study were considered to describe the focus of the study. This was done to identify and define the specific unit of analysis (see Table 3.2) of the reviewed studies.

The selected studies cover a range of themes and sub-themes and therefore offer valuable insight into addiction management and treatment methods.

Talcherkar's (2019) dissertation explores holistic, mindfulness-based approaches and spirituality in addiction recovery, placing emphasis on self-empowerment and personal agency as integral to the recovery process. The study underlines the importance of making healthy choices and advocates the integration of Western and Eastern approaches in addiction treatment. Ayurvedic perspectives towards prevention and management of nicotine addiction are discussed; this also highlights the role of Ayurveda in addressing substance abuse through

internal and external medication (Talcherkar, 2019).

The autoethnographic study presented (Talcherkar 2019) describes alternative treatment methods for addiction to emphasise the need for a greater understanding of integrated models. The study reviews holistic non- conventional approaches and traditional methods, including how Ayurveda views and treats addiction. It also reflects on the role of spirituality and healing within recovery, showcasing the benefits of health and well-being through alternative models of addiction treatment. Additionally, the literature review in the study explores various perspectives on addiction, including biomedical neuroscientific, holistic, and spiritual models, as well as the history of addiction treatment and the evolution of approaches (Talcherkar, 2019).

The journal article by Singh et al. (2023) discusses the scope of Ayurvedic intervention in SUD management, and explores the use of herbal remedies, behavioural therapy and pharmacotherapeutic interventions. It also highlights the importance of lifestyle modalities, dietary changes and Ayurvedic principles in combating addiction, as well as the incorporation of meditation, yoga and awareness practices in treatment. These intervention techniques aim to provide symptomatic relief, detoxification and ongoing support for recovery.

In summary, the articles highlighted the significance of personalised treatment plans, holistic care and the integration of complementary and alternative medicine in the management of SUDs. The emphasis of self- empowerment, healthy choices and diverse treatment modalities enable a contribution to the understanding of recovery and highlight the importance of ongoing support and aftercare to promote wellness.

Table 4.2 presented next, is a list of articles included in the final sample.

Table 4.2 List of Articles included in the Final Sample

No	Author	Year of publication
1	Talcherkar	2019
2	Wahab and Kalita	2024
3	Sharma et al	2022
4	Mamidi and Gupta	2023
5	Sharma and Shukla	2022
6	Nisha and Hegde	2023
7	Raj et al	2023
8	Rathi and Rathi	2021
9	Das et al	2023
10	Singh et al	2023
11	Kumawat and Das	2023
12	Rathi and Rathi	2020

Table 4.3 presented next, is the themes and subthemes that emerged from the data analysis.

Table 4.3 Themes and sub-themes

Theme	Sub-theme
Prevention methods	Herbal preparations Testing, good conduct, Replacement therapy
Assessment methods	Risk Assessment Physiological needs Individualised treatment plans Environmental factors
Early intervention methods	Self-empowerment and personal agency 3.2 Integration of Western and Eastern approaches in addiction treatment. 3.3 Advocacy for holistic, mindfulness-based approaches in addiction recovery. Support and resources.
Intervention methods	Detoxification Internal and external medication Behavioural therapy Pharmacotherapeutic intervention
Ongoing/after care	Out-patient care Support groups Integration

4.5 Discussion of the Unit of Analysis

The twelve units of analysis addressed aspects of SUD management through Ayurvedic and holistic approaches. Themes included individualised treatment plans, the integration or traditional practices and the exploration of personal experiences in recovery. For example, in Unit 1, Talcherkar (2019) provides an autoethnographic structure of personal recovery regarding SUDs, emphasising the transformative power of holistic practices and spirituality. The narrative approach promotes an understanding of SUDs as it illustrates how personal agency and self-reflection play a critical role in addictive thinking and the recovery process. However, in Unit 3, Sharma et al. (2002) explore a case series that examines clients undergoing Ayurvedic management for Alcohol Withdrawal Syndrome (AWS). The study shows the importance of empirical evidence in supporting the effectiveness of Ayurvedic treatments and provides concrete examples of the alleviation of withdrawal symptoms through individualised interventions.

The nature of these studies is mainly qualitative with an emphasis on personal experiences and case-based evidence. For example, the critical reviews conducted for Unit 11, Kumawat et al. (2023) and Unit 2, Wahab and Kalita (2024) show a combination of existing literature on alcoholism and opium withdrawal. These reviews highlight the potential of integrating traditional Ayurvedic practices in modern treatment regimes. Kumawat et al. (2023), Unit 11, discusses Ayurvedic formulas and procedures that help detoxify the body and restore balance of doshas, while Unit 2, Wahab and Kalita (2024), explores the holistic management of alcohol abuse and examines the role of lifestyle changes.

Das et al. (2023), Unit 10, contributes to this by focusing on nicotine addiction. The critical review shows the effectiveness of Ayurvedic interventions; for example, the use of herbal remedies and lifestyle changes. This aligns with Unit 12, Rathi and Rathi (2020), which explores Ayurveda's perspectives on preventing and managing dependency. Both studies support the need for a holistic approach that considers physical, psychological and social dimensions, as well as reinforcing the idea that effective treatment must address the root cause of substance use. Likewise, the studies for Unit 4, Mamidi and Gupta (2023), and Unit 6, Nisha and Hegde (2023), focus on specific populations and conditions and examine the interconnection of eating

disorders, food cravings and alcoholism as well as Ayurvedic management of Alcohol Use Disorder (AUD). Unit 4, Mamidi and Gupta (2023), explores how food cravings may aggravate certain disordered eating behaviour and alcohol use, suggesting that addressing craving through Ayurvedic dietary practices may have a positive effect. Unit 6, Nisha and Hegde (2023), provide insight into the Ayurvedic management of AUD and focuses on the importance of individualised treatment plans that consider the needs of each client.

The qualitative nature of these studies enables a deep exploration of personal experiences and case-based evidence and reveals the importance of individualised treatment plans and the integration of traditional knowledge in modern practice. For example, in Unit 5, Sharma and Shukla (2022) present a case study illustrating how Nasya and Ayurvedic medicines can effectively manage symptoms of SUD. This study not only provides empirical evidence for the efficacy of Ayurvedic treatments but also emphasises the need for an approach that includes counselling and lifestyle modifications.

Furthermore, the analysis of these twelve units demonstrates a comprehensive understanding of SUD and addiction management through Ayurvedic practices. The studies highlight the necessity of understanding addiction within diverse contexts, signifying tailored interventions that are essential when addressing clients' challenges. These collective studies not only enrich the discourse on addiction and treatment but also provide a groundwork for future research that can further validate and expand the existing findings.

Future studies can benefit from larger sample sizes and more methodological designs that generate consistent evidence about the effects of these Ayurvedic interventions in treatment, as suggested by Unit 9, Singh et al. (2023), who make a call for pragmatic studies that will validate the role of homoeopathic medicines in SUDs.

The next section presents the discussion of the findings in relation to the research questions (RQs).

4.6 Discussion of the Findings in Relation to the RQs

This section discusses the answers relating to the research questions (RQ) mentioned earlier in this chapter.

RQ1: What prevention methods are used in Ayurveda in addressing SUDs in adults?

The analysis of the extracted data indicates that most of the studies in this scope focused primarily on holistic approaches, lifestyle modifications, and the integration of Ayurvedic principles for preventing and managing substance use disorders. Therefore, most of the twelve selected studies were relevant to this research question.

Rathi and Rathi (2020) and Wahab and Kalita (2024) provided useful insights into the preventative measures outlined within Ayurveda. Rathi and Rathi (2020) emphasised the importance of good conduct (known as Sadvritta) and psychotherapy (known as Satvavajay Chikitsa) as foundational elements in preventing SUDs. These studies argue that utilising ethical living through good conduct and mental health practices can significantly reduce the risk of developing SUDs. This is relevant for the younger populations, where external factors (such as their environment and parental guidance) play a significant role in shaping their behaviour. These two studies indicate that early intervention through education about decision-making and healthy choices can prevent the onset of addiction.

Similarly, Wahab and Kalita (2024) focus on the importance of diet and replacement therapy as preventative methods against alcohol abuse. They suggest that a balanced diet guided by Ayurvedic principles may help maintain the body's equilibrium and reduce cravings for addictive substances. Their study discusses Ayurvedic formulas such as herbal preparations that could mitigate the effects of alcohol consumption. This approach supports the holistic nature of Ayurveda, where physical health is linked to emotional and mental well-being.

Furthermore, the study by Das et al. (2023) reinforces the significance of lifestyle changes in

the prevention of nicotine addiction and supports the incorporation of Ayurvedic dietary practices and herbal remedies that may alleviate the risk factors associated with substance use. The authors highlight the role of Doshashodhan (the elimination of weakened humours) in everyday life, which is essential for maintaining balance and preventing addiction. This aligns with the findings of Sharma et al. (2022), who present a case study to demonstrate how Ayurvedic treatments, such as Nasya and other herbal medicines, can effectively manage symptoms of SUDs and prevent relapse. The case study illustrates the practical application of Ayurvedic principles in real-world scenarios, showcasing the potential of individualised treatment plans.

Additionally, Mamidi and Gupta (2023) share more insights on food and eating disorders related to alcohol abuse; this suggests that addressing these cravings through Ayurvedic dietary interventions serves as a preventative measure against SUDs. They emphasise the psychological aspects of addiction and the importance of understanding these aspects, including the support of counselling and the use of support systems. Mamidi and Gupta (2023) highlight the multifaceted nature of Ayurveda by focusing not only on substance use but also on the behavioural patterns that contribute to the addiction.

Nisha and Hegde (2023) delve into the Ayurvedic management of AUD, noting the importance of individualised treatment plans that consider the needs of each client. The role of medicated smokes and other Ayurvedic therapies for the prevention of relapse are discussed; this reinforces the idea that prevention is an on-going process requiring on-going support and adaptation. The integration of meetings and a sense of community highlight a crucial component with regards to maintaining sobriety and enabling a sense of belonging for those in recovery.

Furthermore, the studies (Wahab & Kalita, 2024; Talcherkar, 2019; Sharma, Yadav & Vishnoi, 2022; Sharma & Shukla, 2022; Rathi & Rathi, 2021; Nisha & Hegde, 2023; Mamidi & Gupta, 2023; Rathi & Rathi, 2020; Das, Kumawat, Sharma & Pandey, 2023; Kumawat, Sharma, Kumawat & Das, 2023; Singh, Singh & Ram, 2023) indicate that Ayurveda employs many prevention methods to address SUDs in adults, focusing on holistic

practices, lifestyle and dietary interventions. The integration of these Ayurvedic principles in terms of daily practice is essential for reducing the risk of addiction and promoting overall well-being.

By examining the subthemes, we can appreciate the depth of Ayurvedic approaches to SUDs, paving the way for more effective interventions. This approach not only addresses physical aspects of addiction, but places emphasis on the psychological and social dimensions with regards to creating a holistic framework for recovery and preventative methods.

RQ2: What are the assessment methods used in Ayurveda in the diagnosis of adults with a SUD?

The assessment of SUDs in adults through the lens of Ayurveda involves an approach that integrates various methodologies to ensure the accurate diagnosis and effective treatment. The existing literature reveals a multifaceted framework of risk assessments, psychological needs, and individualised treatment plans, and considers environmental factors, psychological symptoms, cravings, substance use history, diagnostic criteria, rating scales, monitoring, and evaluation.

One of the foundational aspects of Ayurvedic assessment is the risk assessment of clients presenting with SUDs. Rathi and Rathi (2020) highlight the importance of identifying risk factors such as genetics, environmental influences, and lifestyle choices that contribute to addiction. This assessment helps the practitioner understand the vulnerabilities of each client, enabling a more individualised and person-centred approach to treatment. Evaluating these risk factors allows Ayurvedic practitioners develop a clearer picture and understanding of the client's susceptibility to substance use, which is crucial for effective intervention.

In addition to risk factors, Ayurveda places significance on addressing the physiological needs of those with SUDs. Wahab and Kalita (2024) discuss how Ayurvedic diagnostics involve a thorough examination of the client's physical health, inclusive of the assessment regarding dosha imbalances and the impact of the substance use. This evaluation ensures that any

underlying health issues are identified and addressed. The integration of herbal preparations and dietary needs or changes is often recommended to restore and support the body and its necessary healing processes.

The development of the individualised treatment plans is extremely significant in Ayurvedic practice. Das et al. (2023) highlights the necessity of a customised treatment strategy that is based on the uniqueness of each client and their constitution (Prakriti). This individualised approach does not only consider the abused substance but also incorporates the client's psychological and emotional state. Ayurvedic practitioners can enhance the effectiveness of treatment by tailoring the interventions to the client's individual needs, and this improves the outcome.

Furthermore, the assessment process accounts for various environmental factors that may influence substance use. Nisha and Hegde (2023) point out that understanding the client's social context, including family dynamics and peer influences, is crucial for accurate diagnosis and treatment planning. Environmental factors can impact on the client's behaviour and coping mechanisms making it essential for practitioners to consider these elements when assessing SUDs.

Psychological symptoms and cravings are also crucial components within this process. Sharma et al. (2022) highlights the importance of evaluating the psychological state of those with SUDs, as mental health issues often occur with substance use. The identification of cravings and triggers are vital in the development of effective coping strategies and therapeutic interventions. Ayurvedic practitioners potentially utilise various techniques that include counselling and psychotherapy (Satvavajay) to support the psychological aspects of the client's recovery.

The substance use history of the client is a critical factor in the assessment process. Mamidi and Gupta (2023) suggest that understanding the client's past substance use patterns or behaviours—including frequency, duration and types of substances used—could allow a more accurate diagnosis. The history provides insight into the severity of the usage and enables an informed sense of development regarding detox and treatment methods.

With diagnostic criteria, Ayurveda employs a combination of clinical observations and client-recorded symptoms to assess SUDs instead of the standardised diagnostic tools that are used in Western medicine. Rathi and Rathi (2020) discuss the use of Ayurvedic principles such as the evaluation of the imbalances of the doshas and the presence of symptoms associated with addiction to guide further diagnosis.

Another crucial component of the Ayurvedic assessment process is monitoring and evaluation. The ongoing assessment of the client's process is essential for determining the effectiveness of therapeutic treatment interventions. Wahab and Kalita (2024) uphold the importance of regular follow-ups where, motivated by the client's responsiveness, adjustments are made to treatment plans. This approach ensures that the treatment remains relevant and effective to the client throughout their process.

The use of rating scales can enhance the process by providing a framework for evaluating the severity of SUDs. While Ayurveda may not have standard rating scales, practitioners may develop their own assessment tools based on the Ayurvedic principles and client feedback. It allows a more objective evaluation of their condition and progress in the long-term.

Furthermore, the assessment methods used in Ayurveda for diagnosing adults with SUDs include a holistic and individualised approach that considers factors such as risk assessment, physiological needs, environmental influences, psychological symptoms, and substance use history. Integrating these elements in the process may help Ayurvedic practitioners to develop treatment plans that address the individual needs of their clients.

RQ3: What early intervention methods are used in Ayurveda in addressing SUDs in adults?

The early intervention methods used in Ayurveda for addressing SUDs in adults are multifaceted and rooted in holistic principles. These methods highlight self-empowerment and personal agency in addiction, the exploration of alternative treatment modalities, and the integration of Western and Eastern approaches in treatment. The autonomy and responsibility

fostered within the making of healthy choices enable a comprehensive Ayurvedic framework that is directed towards recovery.

Self-empowerment and personal agency are central themes within the scope of Ayurvedic interventions. Talcherkar (2019) positions the beginning of the recovery journey at the individual's recognition of their willingness to change. This form of empowerment is developed through education and the understanding of addiction by utilising the available tools. Ayurvedic practitioners encourage clients to take the active role within recovery, fostering a sense of ownership over their recovery. This approach enhances motivation and instils a sense of confidence in the individual as they navigate their challenges to overcome addiction.

The exploration of alternative treatment modalities is significant within Ayurvedic practice. Wahab and Kalita (2024) discuss various Ayurvedic therapies such as herbal remedies, dietary needs and lifestyle changes that serve as effective SUD interventions. These modalities are often used in combination with traditional treatments, providing a holistic approach that addresses both the physical and psychological aspects of addiction. The incorporation of Ayurvedic practices such as yoga, breathing exercises, and meditation offer individuals a diverse set of tools for managing triggers, cravings and stress.

The integration of Western and Eastern approaches in treatment is increasingly recognised as a valuable strategy. Rathi and Rathi (2020) highlight the importance of combining Ayurvedic principles with evidence-based Western practices to create an individualised treatment plan. This approach allows a better understanding of addiction by addressing both biochemical and psychosocial factors contributing to substance use. Practitioners can provide an effective and personalised treatment experience for those struggling with SUDs by leveraging the strengths of both systems.

Autonomy and responsibility in making healthy choices are fundamental to the Ayurvedic philosophy. Sharma et al. (2022) expresses the significance of encouraging individuals to take responsibility for their health and overall well-being. This involves not only making informed decisions about treatment options but also the adoption of healthier lifestyle practices to support

recovery. A sense of autonomy fostered by Ayurveda empowers individuals to break free from the cycle and enable them to make choices that align with their long-term goals.

The utilisation of complementary and alternative medicine (CAM) in combating addiction is a significant aspect in Ayurvedic interventions. Das et al. (2023) discusses how treatments such as herbal formulas can complement conventional therapies and enhance their effectiveness. CAM approaches are particularly beneficial in addressing the side effects of withdrawal and promoting well-being. The integration of these alternative methods provides a holistic framework that supports the individual.

The support of holistic, mindfulness-based approaches in recovery is a cornerstone of Ayurvedic practice. Nisha and Hegde (2023) highlight the role of mindfulness in fostering self-awareness and emotional regulation, this being essential for managing triggers and cravings. Mindfulness practices, such as yoga and meditation, help individuals have a deeper connection with themselves as these promote an increase in self-esteem, healing and resilience. This holistic approach addresses the symptoms of addiction and nurtures the overall mental and emotional health of the individual.

Reflection on identity reformation and transformation during the recovery process is a vital aspect of Ayurvedic interventions. Talcherkar (2019) explores the way individuals undergo personal growth and transformation as they navigate their recovery. This process of identity reformation entails letting go of old behaviour and embracing new ways of being and is facilitated by the supportive environment created through Ayurvedic practices. Individuals are encouraged to reflect on their own experiences and aspirations and thus enable the Ayurvedic sense of purpose and direction.

The role of the guru within is another important element in facilitating recovery and transcendence. Rathi and Rathi (2021) discuss how the guidance of a knowledgeable practitioner or mentor provides individuals with necessary support and wisdom to navigate the complexities of SUDs. The guru serves as a source of inspiration and accountability, helping individuals to commit to their recovery goals and encourages them in the exploration of their

strengths.

In terms of support, resources, and the identification of risk factors, Ayurveda highlights the importance of assessment tools. The CIWA-AR scale (commonly used in Western medicine) can be adapted within the Ayurvedic framework to monitor withdrawal symptoms and assess the severity of SUDs. The early identification of risk factors enables practitioners to tailor interventions in a manner that addresses the needs of each individual, and thereby increase the likelihood of a successful recovery.

Furthermore, the early intervention methods used in Ayurveda to address SUDs in adults encompass a holistic and integrative approach of self-empowerment, alternative treatment modalities and personal agency. The fostering of autonomy, responsibility, and mindfulness provides individuals with indispensable tools to support them in recovery.

The combination of Ayurvedic principles with Western practices offers a framework that addresses the multifaceted nature of addiction and thereby promotes healing and transformation.

RQ4: What intervention methods are used in Ayurveda in the treatment of adults with a SUD?

Ayurveda offers a variety of intervention methods for treatment. These methods are rooted in holistic principles, focusing on detoxification, medication and therapeutic practices that address the physical and psychological aspects of addiction. By integrating detoxification processes, behavioural therapies and lifestyle changes, Ayurveda provides a multifaceted approach to recovery.

Detoxification is a cornerstone of Ayurvedic treatment for SUDs. Panchakarma, a series of detoxification procedures, plays a crucial role in cleansing the body of accumulated toxins regarding substance use. As stated by Sharma et al. (2022), Panchakarma includes therapies such as Virechana (purgation) and Vamana (emesis) which help the elimination of harmful

substances from the body. This process does not only assist with physical recovery but also prepares individuals for therapeutic interventions.

Medication often involves the use of herbal remedies tailored to the needs of the individual. Das et al. (2023) focuses on the importance of Ayurvedic preparations such as formulations containing Ashwagandha and Brahmi, known for their adaptogenic and neuroprotective properties. These herbal remedies provide symptomatic relief during the recovery process by helping to manage withdrawal symptoms and reduce cravings.

Padanshik Krama (foot therapy) is another unique aspect of Ayurvedic treatment that focuses on the withdrawal management. Specific techniques are applied to the feet which are believed to have a profound impact on the entire body through stimulating reflex points. This enhances relaxation, promoting emotional balance and enhancing coping mechanisms within the psychological aspects of addiction.

Internal and external medication are integral components of Ayurvedic treatment. Internal medications, such as those made from herbs, work to restore balance within the body, whilst external treatments, such as Sarwang Abhyanga (full-body oil massage) and Swedana (steam therapy), help alleviate physical discomfort and promote relaxation. These external procedures enhance circulation, reduce stress and support the process of detoxification as highlighted by Wahab and Kalita (2024).

Shirodhara, a therapy that involves the pouring of warm oil on the forehead, is effective in calming the mind and alleviating anxiety as this is inclined to be heightened during withdrawal. Similarly, Nasya Karma, the administration of oils through the nasal passages, helps to clear mental fog and tends to improve cognitive functioning. Padabhyanda (foot massage) complements these treatments by promoting relaxation and grounding.

In addition to these physical interventions, behavioural therapy and counselling are vital components of Ayurvedic treatment for SUDs. Rathi and Rathi (2020) shed light on the

importance of addressing psychological aspects of addiction through supportive counselling and behavioural interventions. These therapies help explore the underlying causes of substance use, develop coping mechanisms and enhance resilience against relapse dynamics.

Mental health support is a critical aspect of Ayurvedic care. The integration of mindfulness practices promotes emotional regulation and self-awareness, which is essential for long-term recovery. Nisha and Hegde (2023) highlight how these practices support mental health and enhance the effectiveness of the Ayurvedic interventions thereby promoting inner peace and stability.

Pharmacotherapeutic interventions are also considered within the Ayurvedic framework, particularly when combined with herbal remedies (Rathi and Rathi, 2020; Das, Kumawat, Sharma and Pandey, 2023). The use of certain Ayurvedic formulas can complement conventional medications, providing a holistic approach to managing cravings, triggers and withdrawals (Sharma, Yadav, and Vishnoi, 2022; Wahab and Kalita, 2024). This strategy allows for a more personalised treatment plan that addresses the needs of the individual.

Holistic care is a fundamental principle of Ayurveda, highlighting the connectedness of body, mind, and spirit. Addressing all aspects of an individual's well-being enables the promotion of Ayurvedic interventions to promote a comprehensive healing process (Kumawat, Sharma, Kumawat, and Das, 2023; Nisha and Hegde, 2023). Thus, this holistic approach provides lifestyle and dietary changes that are essential for recovery. It is also evident from the existing literature that individuals are encouraged to adopt a balanced diet and avoid processed food that might increase craving and withdrawal symptoms.

Judging from the literature, Ayurvedic principles of balance and harmony within the body guide the SUD treatment process. It seems that the incorporation of yoga, and meditation into the daily routines aids physical detoxification and enables mental clarity and emotional stability. These practices encourage individuals to increase their awareness of thoughts and feelings, empowering them to make healthier choices and develop an understanding of their relationship with substances.

In conclusion, the intervention methods used in Ayurveda enable a wide range of therapeutic practices, including detoxification, herbal remedies, behavioural therapy and holistic care. Integrating these approaches enable a framework to address the physical, psychological and spiritual dimensions of addiction.

RQ5: What methods are used in Ayurveda in terms of the ongoing/after care of adults with a SUD?

The recovery journey doesn't necessarily end with detoxification and treatment, it entails continuous support and on-going aftercare to ensure lasting change and the prevention of relapse. Using the holistic approach of Ayurveda, the variety of methods offer ongoing aftercare during recovery. These methods include out-patient care, community support treatment groups and the integration of various Ayurvedic principles within everyday life to maintain a level of sobriety and recovery.

Out-patient care and aftercare in Ayurveda ensures continuous support and monitoring of recovery from SUDs. This includes regular consultations and therapeutic sessions with practitioners, assessing the continuous progress and making any needed adjustments to their individual treatment plans. Sharma et al. (2022) note that out-patient care could involve follow-up sessions which focus on dietary needs, lifestyle changes and the use of herbal supplements tailored to the needs of the individual. This continuous routine with their practitioner ensures a level of accountability and a sense of commitment to recovery.

In addition to the continuous consultations and therapy sessions, support groups play a significant role in the aftercare process. They provide a sense of security and a safe environment for individuals to share their experiences, challenges and milestones or accomplishments with others who are on a similar recovery journey. According to Rathi and Rathi (2020), community support is extremely important within the recovery process as many individuals end up feeling less isolated and more understood. Ayurvedic support groups enable the discussion of Ayurvedic principles such as mindfulness practice and the reinforcement of holistic coping strategies. The shared experiences in these groups increase the level of motivation and

encourage individuals to remain focused on their goals.

Integration of Ayurvedic principles in everyday life is essential for ensuring the maintenance of long-term recovery. This involves adopting a lifestyle aligning with the Ayurvedic teachings of a balanced nutrition, physical activity and mindfulness practices. According to Das et al. (2023), individuals are encouraged to include yoga and meditation into their everyday routines, to promote better physical health and enhance emotional stability and mental clarity. The practices help individuals develop a deeper awareness of their thoughts and feelings which helps them manage cravings, triggers and stress.

Furthermore, the integration of dietary practices enables ongoing care. According to Nisha and Hegde (2023) those in recovery from SUDs are encouraged to follow a Sattvic diet; this diet of wholesome and fresh food promotes balance and clarity. Nisha and Hegde (2023) also highlight the importance of avoiding stimulants and processed foods due to emotional instability that could be increased or triggered with cravings. Focusing on healthy food and nutrition supports physical and mental well-being to ensure sustained recovery.

Ayurveda's holistic nature encourages the engagement of self-care practices that promote overall well-being. It includes participation in Ayurvedic therapies (Kumawat et al., 2023) such as Abhyanga (oil massage), Shirodhara (pouring oil on the forehead), and Nasya (nasal therapy), thus alleviating stress and promoting relaxation. The use of these therapies provides physical benefits and foster a connection with oneself, cultivating self-identification and therefore enhancing emotional resilience.

In conclusion, the methods used encompass a multifaceted approach including out-patient, aftercare, community support groups and the integration of Ayurvedic principles in everyday life. The Ayurvedic provision of continuous support, community connections and the promotion of holistic well-being enables the framework individuals need to navigate challenges within recovery.

4.7 Limitations and Validity Threats

There are several limitations in conducting SR that should be considered when reporting on the research findings. Some of the limitations in this study are:

- There is a dearth of research on the use of Ayurveda for treatment of SUDs.
- A mix of published journal articles, books and a master's thesis were sourced for this study, with different methodological approaches. Therefore, due to the limited number of literatures on the topic, qualitative, quantitative and mixed methods studies were selected.
- The review only included studies that were accessible in the selected databases in review protocol.
- Only journal articles that were available in full texts were selected.

Validity threats can negatively influence the accuracy of the research study. Therefore, it is imperative to identify and manage such threats to ensure that the review results are as reliable as possible. This study has several threats to validity, which are divided into four categories:

- Researcher bias
- Publication bias
- Biasness related to primary studies
- Threats to data extraction process and its results

Firstly, as one researcher conducted this review, there is a higher probability of jeopardising the validity in comparison with a review conducted by several researchers. To tackle this bias, I conducted some tasks twice to guarantee the quality of the work. For example, I read the abstracts several times to minimise possible mistakes on my part. After extracting the data, my research supervisor reviewed them and provided me with feedback; this was another measure to address researcher-bias.

Secondly, publication bias relates to the problem that positive results are more likely to be published than negative results (Ioannidis, 2005). This means that it is likely this researcher has included articles that are not entirely related to prevention methods in Ayurveda, assessment methods in Ayurveda, early intervention methods in Ayurveda, intervention methods in

Ayurveda, or ongoing/after care in Ayurveda, since the search keywords were "Ayurveda," "substance use disorder," "treatment," "intervention," and "recovery." These keywords could also include some papers that focused on the contentions in the health field to include Ayurveda as a primary approach for SUD. To mitigate this problem, I conducted a pilot search which was followed by the primary search. Thus, by defining the specific search strategy in the review protocol, I aimed to minimise publication bias.

Thirdly, to minimise the threats to identification of primary studies, the search strategy described in the review protocol presented in Chapter 3 was used during the data base search in order to cover as many studies as possible, since the topic, Ayurveda, is such a unique and rare approach in the treatment of SUD. To further minimise the threat to identification of primary studies, as mentioned previously, the titles and the abstracts of each study were read several times to include the most useful studies; selection was focused on those studies that addressed the research question.

Lastly, the fourth threat to validity that I identified in this study relates to the data extraction phase. In this instance, I defined the data extraction form and data extract process while designing the review protocol and used the process to record information about the selected studies. This procedure helped me to minimise potential bias in relation to the data extraction process. The review of the data extraction tools was expedient, as was the data extraction process by my research supervisor, who offered valuable insights to mitigate such bias.

4.8 Conclusion

The researcher presented a systematic review of literature on Ayurveda as an approach/method to treat SUD. The aim of the study identifies the existing methodologies regarding prevention, assessment, intervention, and ongoing care of SUD through Ayurvedic practices. Research was conducted with the intent of finding the effectiveness and applicability of these existing methodologies within clinical settings, focusing on withdrawal symptoms, management, and the promotion of recovery.

This review was conducted by following the guidelines of the Preferred Reporting Items for

Systematic Reviews and Meta-Analyses (PRISMA) on conducting systematic reviews and fulfilling the required standards for systematic reviews. The defined search strategy identified 150 articles, of which thirty studies (published between 2002-2023) were included as primary studies. The thesis answered the five research questions defined in the review protocol and thus achieved the research aims and objectives.

This chapter presented the research findings in several stages. The studies were categorised and presented within four main groups and the qualitative data presentation showed the distribution of publications and the types of studies, based on the research method employed. Twelve units of analysis were identified and summarised in Table 3.2.

In the final stage, data extraction was conducted to find answers to the five research questions. The results of this review indicate that most studies are about the efficacy of Ayurvedic treatments in managing withdrawal symptoms and promoting recovery (Sharma et al., 2022).

The study results showed that there are significant gaps in the literature regarding long-term outcomes and the integration of Ayurvedic methods within Westernised conventional treatment approaches. For example, while some studies such as Rathi and Rathi (2020) and Nisha and Hegde (2023) provide insight in the effectiveness of some Ayurvedic formulas, they lack the exploration of methodological designs and larger sample sizes.

The results suggest that current research on Ayurveda for the use of SUD treatment is promising but still in its initial stage, necessitating further in-depth studies to establish an evidence base.

Although there is a growing interest in the application of Ayurveda in addiction treatment, as noted by Talcherkar (2019), the existing research is quite limited by small sample sizes, lack of control groups and insufficient longitudinal data to assess long-term efficacy of Ayurvedic interventions. This shows the need for more comprehensive research to validate these approaches and their effectiveness.

Future research would hopefully focus on longitudinal studies and randomised controlled trials to better understand the impact of Ayurvedic interventions in the long-term within the recovery of SUDs, and explore the potential integration of these methods with Western and conventional treatment strategies.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The previous chapter presented the research findings that emanated from the SR. This chapter presents the conclusions and recommendations of the research, in terms of Ayurveda's effectiveness in addressing SUDs from a social work perspective.

The insight gained from both the literature review and findings enabled the researcher to seek and provide a holistic understanding of the role of Ayurveda, focusing on its potential as an alternative approach within the spectrum of SUD treatment.

The methodology of SR made it possible to combine and scrutinise thirty diverse studies to offer a more in-depth analysis. This approach allows the identification of common themes and patterns within various studies and facilitates a critical evaluation of the evidence base surrounding Ayurvedic practices. It enables exploration of the importance of a multifaceted approach to SUD treatment, recognising the link between physical, psychological, and social factors within the recovery process.

Additionally, this chapter will delve into the key themes identified and explored within the SR, such as the significance of holistic care, integration of lifestyle changes, and the role of ethical living in preventing and managing SUDs. These patterns and themes are explored within the research questions and serve as key themes. Each of these will be examined to highlight and reflect personal beliefs, experiences and biases that may have influenced the process or interpretations of the findings. This reflection is important in terms of transparency and a deeper understanding of the research context.

The study limitations will be acknowledged as well, including potential biases in the selected

studies, variability in research designs and the challenges associated with the general findings in various settings and populations. The recognition of limitations is important in guiding future research.

Recommendations will also be provided to target policies, practice and future research. They will be grounded in the findings of the SR and aim to improve the integration of Ayurvedic practices within the Western and conventional treatment frameworks for SUDs. The advocacy for further research on the efficacy of specific Ayurvedic interventions would contribute immensely in terms of inclusivity and effectiveness in addiction treatment and ongoing recovery.

Furthermore, this chapter not only summarises the findings of the study but also will serve to enable future exploration and application of Ayurvedic principles in the field of substance abuse treatment. It facilitates a dialogue between traditional and contemporary practices to ensure an effective response to SUD challenges.

5.2 Conclusions on Chapters 1-4

Chapter 1 presented an overview and introduction to the study to provide the rationale for selecting a SR.

Chapter 2 outlined the significance of SUDs as a pressing global concern. The chapter highlighted the limitations of the conventional treatment approaches that focus on physical aspects of addiction and neglect the psychological and social dimensions. This gap in treatment points to the need for alternative and complementary approaches, such as Ayurveda, which offers a holistic perspective on health and recovery.

The literature review presented in Chapter 2 provided an analysis of the historical context and initial principles of Ayurveda. It highlighted the importance of understanding the mind-body connection. The chapter detailed the concepts of Ayurveda, including the dosha system

consisting of Vata, Pitta and Kapha, the significance of balance, and the role of lifestyle modifications in promoting health and well-being. It also identified gaps in the existing research. While the literature highlighted that there is a growing interest in alternative medicine, empirical evidence supporting the efficacy of Ayurvedic interventions for SUDs remains limited.

Chapter 3 unpacked the applied SR methodology. The search strategies, inclusion criteria, and data extraction processes were defined. The chapter showed the importance of the approach in combining evidence from diverse studies to ensure reliability. The SR identified a total of twelve studies that met the criteria, revealing a growing body of research exploring the application of Ayurveda in treating SUDs.

The methodology highlighted the challenges associated with conducting SRs, including variability in study designs, small sample sizes, and the potential for bias in the selected studies. The chapter showed the importance of transparency in the research process and acknowledged the limitations of the included studies and the need for concern in interpreting the findings.

Chapter 4 presented the findings of the study and showed the effectiveness of Ayurvedic treatments in managing withdrawal symptoms and encouraging recovery. The review revealed that nine studies focused on the application of Ayurveda specifically for SUDs, while the other three studies explored its integration within Westernized conventional practices. This chapter also categorised the identified studies into five main groups: prevention methods, assessment methods, early intervention methods, intervention methods, and ongoing/aftercare in Ayurveda. This categorisation provided a structured framework for understanding the diverse applications of Ayurvedic practices in the context of SUD treatment.

As mentioned, this chapter, Chapter 5 concludes the study by presenting a summary and conclusions of key aspects. This chapter also offers recommendations for social work practice, policy and future research relating to Ayurveda as a treatment model in social work practice with adults struggling with SUDs.

Conclusions relating to the selected theoretical framework is presented next by way of Table 5.1.

5.1 Conclusions Relating to Selecting the Ethics of Care as Theoretical Framework

Table 5.1 Ethics of care as a framework for Ayurveda for SUDs in social work practice

Stages of care	Moral principles of care	Empirical Question(s)	Implications in the findings
Caring about	Attentiveness	What methods are used in Ayurveda in terms of prevention, assessment, early intervention, and ongoing/ after care for adults with a SUD?	The findings suggest that a comprehensive understanding of Ayurvedic methods is crucial for effective prevention and care. By being attentive to the holistic approaches in Ayurveda, practitioners can better identify and implement strategies that address the unique needs of adults with SUDs, leading to more effective interventions and support systems.
Caring for	Responsibility	How are social workers able to care for adults with a SUD using Ayurveda?	The findings indicate that social workers have a responsibility to integrate Ayurvedic principles into their practice. This includes understanding the ethical implications of care and ensuring that they are equipped with the knowledge and skills to provide culturally competent care that respects the values and beliefs of clients seeking Ayurvedic treatment.

Care giving	Competence	How is care facilitated?	The findings highlight the importance of competence in delivering Ayurvedic care. Practitioners must possess a thorough understanding of Ayurvedic methodologies and
			treatment plans to facilitate effective care. Continuous professional development and training in Ayurvedic practices are essential to ensure that caregivers can provide high-quality, evidence-based interventions for adults with SUDs.
Care receiving	Responsiveness	What strategies are in place to allow adults with a SUD to respond to care?	The findings suggest that systems must be established to ensure that adults with SUDs can effectively respond to the care they receive. This includes creating feedback mechanisms, support groups, and follow-up processes that allow clients to express their needs and experiences, thereby enhancing the responsiveness of care provided.
Care with	Reciprocity	How are principles of reciprocity facilitated in the care process?	The findings indicate that fostering a reciprocal relationship between practitioners and clients is vital for effective care. This involves mutual respect, open communication, and collaboration in the treatment process. By facilitating reciprocity, practitioners can empower clients, encouraging active participation in their recovery journey and enhancing the overall effectiveness of Ayurvedic interventions.

5.4 Summary and Conclusions Relating to Selecting SR methodology

The selection of a SR methodology was important pertaining to the relevance of this study of Ayurvedic interventions for substance abuse disorders (SUDs). It was a choice driven by several key factors that impact the need of a systematic approach to this topic.

The SR methodology allowed for an in-depth combination of existing literature; this is necessary in a field where research is often fragmented and varied in quality. The design of Ayurvedic research is characterised by a variety of studies that differ significantly in terms of their design, sample sizes and outcomes.

The method of systematically collecting, evaluating, and integrating evidence from these multiple studies or sources enabled the provision of a structure framework that minimised bias and improved the reliability of the findings. This serves within the context of Ayurvedic treatments, where diverse methods and outcomes may complicate the understanding of their effectiveness.

The process within the SR guaranteed that findings were not rigid but reflective within the realm of multiple sources, increasing the credibility of the conclusions drawn.

The approach assisted the exploration of a wide range of studies, including empirical studies, conceptual analyses and qualitative research. This scope of perspective was vital for capturing the holistic nature of Ayurveda, which includes not only physical health but also mental and spiritual well-being. The inclusion of various studies enabled the SR to provide better understanding of the need for a multifaceted intervention utilising Ayurvedic practices. It enriched the discourse on addiction treatment by accentuating the interconnectedness of physical, psychological and social factors in recovery, which serves as a cornerstone for Ayurvedic philosophy.

The SR methodology aligns with the principles of evidence-based practice, increasing the

importance in healthcare and psychology (Sharma et al., 2022). In a generation where many practitioners justify their treatment choices with empirical evidence, the methodology serves as an important tool to synthesise existing literature and knowledge. The synthesis of existing evidence contributes to the development of knowledge which guides practitioners into making informed decisions about the integration of Ayurvedic treatments into conventional addiction recovery programmes. This is essential for promoting holistic care and addresses the diverse needs of individuals struggling with SUDs.

Furthermore, the SR methodology identifies gaps in the existing literature and thus draws attention to areas where future research is needed (Talcherkar, 2019). This is particularly relevant in the context of Ayurvedic interventions, where empirical evidence may be limited or not explored enough. The identification of these gaps helps contribute to the existing knowledge and sets the tone for future researchers to further validate or expand on the findings.

The choice of SR methodology was not merely a practical preference but a necessary step to safeguard the relevance and pertinence of the research findings. This structured approach enabled the effective navigation of the study and the intricacies of Ayurvedic interventions for SUDs, providing a better understanding for the advancement of academic discourse and practical applications in the field of addiction treatment. The insights explored from this SR may have the potential to inform practitioners, policymakers, and researchers to foster a more integrated and holistic approach to addressing substance use disorders through the Ayurvedic lens.

5.5 Summary and Conclusions Relating to the Main Themes

The summary and conclusions of the main themes are presented next.

5.5.1 Theme 1 Prevention Methods

The prevention methods in Ayurveda explored early intervention and lifestyle modifications in reducing the risk of SUDs. The findings show that Ayurvedic practices such as combining

dietary changes, herbal supplements and lifestyle changes can increase physical and mental well-being. Furthermore, one of the key preventative approaches identified in this study is the use of yoga and meditation in daily routines. It appears that these practices play a role in encouraging relaxation, decreasing stress and becoming emotionally strong, and can improve self-regulation and mindfulness both of which are fundamental for those at risk of developing SUDs.

This study found that yoga helps people to understand and be aware of their thoughts and feelings and consequently recognise and manage cravings and triggers. For example, participants who engage in mindfulness may have a greater ability to cope with stress and cravings, leading to a lower prevalence of relapse.

It was found that dietary suggestions in Ayurveda are adapted to individual constitutions (Prakriti) and encourage the use of whole, natural foods that nourish the body and mind. Herbs such as Ashwagandha and Brahmi can be used to support mental clarity and help reduce anxiety. These herbs provide a natural means of encouraging mental strength and can be added into daily diets or taken as supplements.

Ayurveda encourages lifestyle changes such as a daily routine, waking up early, maintaining a balanced sleep schedule and physical activity. These routines can help calm the body, promoting overall well-being. A structured daily routine can reduce chaotic and unpredictable feelings, which usually trigger substance use in those who are vulnerable.

This study found that the concept of Sadvritta (ethical living) is a cornerstone of Ayurvedic philosophy that promotes moral and ethical behaviour as a means of preventing addiction. The principles include honesty, consideration, respect for oneself and others. Following these ethical guidelines can reduce the likelihood of engaging in harmful behaviour such as substance abuse. Having a sense of community and responsibility could enable individuals to seek support and maintain healthy friendships or relationships—all of which are important in recovery and prevention.

This theme highlights the potential of Ayurveda to serve as an active measure in the prevention of addiction, suggesting that utilising these practices could reduce the occurrence of SUDs. The use of components such as dietary, physical, and ethical practices offers a multi-layered approach to any treatment that encourages a healthier lifestyle, which is beneficial in educating individuals and encouraging communities to adapt to Ayurvedic principles.

The integration of Ayurvedic prevention methods into mainstream initiatives presents an effective strategy for reducing risks of SUDs. Ayurveda encourages early intervention, lifestyle modifications and holistic well-being which provides the framework to address the root causes of addiction and promotes long-term recovery.

5.5.2 Theme 2 Assessment Methods

This study found that the assessment methods used in Ayurveda show a unique perspective on understanding addiction and the root causes. Westernised or conventional assessment tools tend to focus on the symptoms of addiction, whereas Ayurvedic assessments consider the individual's constitution (Prakriti), emotional state and lifestyle factors. The study suggests that this approach allows a more personalised understanding of addiction, assisting in tailored interventions that address root causes rather than only the symptoms.

It was found that Ayurvedic assessments include many techniques. These include pulse diagnosis (Nadi Pariksha), tongue examination, and detailed interviews with individuals to gather information about their physical and mental health. It appears that these methods provide understandings into the imbalances within the body and mind that contribute to addictive behaviours; for example, the identification of specific dosha imbalances guides practitioners in developing individualised treatment plans that align with the client's unique constitution and lifestyle.

The focus on emotional and psychological factors in Ayurvedic assessments reveals the importance of mental health in addiction treatment. The exploration of emotional triggers and

stressors may lead to substance use; however, practitioners can apply strategies that promotes emotional strength and coping mechanisms. This address and nurtures the mental, emotional and physical aspects of an individual's well-being.

The findings suggest that the combination of Ayurvedic assessment methods into Westernised and conventional practices may increase the accurateness of diagnoses and improve treatment outcomes. It was found that clients who made use of Ayurvedic assessments reported better understanding of their addiction, which increased their engagement and willingness in treatment. This supports the notion that a deeper understanding of one's condition can encourage an active role of participation during recovery.

Additionally, the integration of Ayurvedic assessment methods with the use of Westernised diagnostic tools can lead to a better understanding of a condition. This study found that the combination of both approaches enabled a more developed treatment plan for addressing the nature of addiction. Therefore, the evidence is that this approach supports an improved quality of care and allows a better sense of collaboration between practitioners and clients.

Furthermore, the assessment methods in Ayurveda offer valuable insights into the difficulties of addiction. The consideration of the individual's constitution, emotional state and lifestyle factors provide a holistic framework to improve the treatment of addiction. The combination of these methods holds the potential to advance diagnostic accuracy and treatment efficacy, leading to better outcomes for those struggling with SUDs.

5.5.3 Theme 3 Early Intervention Methods

The theme of early intervention methods in Ayurveda highlights the role of timely and appropriate responses to the onset of substance abuse behaviours. The findings suggest that Ayurvedic interventions, such as detoxification therapies (Panchakarma), can address early signs of addiction effectively by restoring balance to the mind and body (Rathi & Rathi, 2020). It seems that these interventions lessen withdrawal symptoms, promote emotional stability and

reduce the likelihood of more severe substance use.

This study found that Panchakarma involves a series of detoxification procedures made to cleanse the body of gathered toxins and restore dosha balance, and this helps lessen the physical and psychological effects of substance use. It seems that addressing these issues in early intervention could help practitioners enable individuals to regain control over their health and well-being and consequently prevent the escalation of substance use behaviours. Furthermore, the focus on early intervention in Ayurveda highlights the importance of community support and education in preventing SUDs. Engaging families and communities in the recovery process may thus enhance the effectiveness of interventions and foster a supportive environment for individuals seeking help. This community-oriented approach is consistent with Ayurvedic principles as it enables interconnectedness of individuals and their environments.

The early intervention methods in Ayurveda provide a structure that addresses the substance abuse behaviours. The focus on detoxification, lifestyle modifications and emotional well-being allows the lessening of immediate symptoms and promotes long-term recovery. The integration of Ayurvedic methods encourages more effective addiction management and support for those in recovery.

5.5.4 Theme 4 Intervention Methods

The intervention methods identified in Ayurvedic literature provide a wide range of therapeutic options for individuals struggling with SUDs. The exploration of the studies highlights the efficacy of treatments, including herbal formulations, dietary modifications, and mind-body therapies. These interventions are rooted in the understanding that addiction is intricate and requires a thorough approach.

This study found that herbal formulations are seen as a cornerstone of Ayurvedic treatment for SUDs of which Ashwagandha (*Withania Somnifera*) and Brahmi (*Bacopa Monnierie*) are commonly used in treatment. The evidence shows that the combination of these herbs reduced

withdrawal symptoms in cases of alcohol dependency. In addition, it was found that dietary modifications or changes play a considerable role in Ayurvedic intervention. Thus, Ayurveda highlights the importance of a balanced diet altered to the constitution (Prakiti) of an individual and their health status. Therefore, the use of fresh fruits, vegetables, whole grains and healthy fats can enhance physical health and support detoxification processes.

Mind-body therapies such as yoga and meditation are important to Ayurvedic intervention. The practices promote emotional regulation, self-awareness and stress management which is essential for individuals in recovery. As mentioned, yoga aids physical detoxification and enhances a sense of community and support amongst practitioners and clients. Techniques such as meditation seem to reduce anxiety and improve coping strategies in those who experience recovery challenges.

The findings suggest that Ayurvedic interventions may complement Westernised and conventional treatment modalities, offering a more integrative approach to addiction recovery that addresses both physical and psychological aspects of the disorder. This integrative model is particularly beneficial as it allows personalised treatment plans that cater to the unique needs of each individual.

Furthermore, the diverse intervention methods provide a holistic framework for addressing SUDs. The use of herbal formulations, dietary modifications and mind-body therapies offer a more in-depth understanding of addiction, not only targeting the symptoms but also promoting overall health and well-being.

5.5.5 Theme 5 Ongoing Care / After Care

Ongoing care is an important aspect of the recovery process. The findings related to this theme reveal the importance of sustained support and maintenance in relapse prevention. Ayurvedic practices champion the continuous engagement of lifestyle management, therapeutic needs, regular follow-ups, and community support systems such as meetings and a sponsor. The

holistic approach of Ayurveda ensures that individuals are not only treated for the SUD but have the necessary support to maintain their overall well-being.

The findings reveal that individuals receiving ongoing Ayurvedic care experience improved their long-term outcomes as the practices enabled a sense of belonging and accountability. It appears that regular follow-ups with Ayurvedic practitioners allow for treatment plans to be adjusted based on the progress and needs of the individual. Also, individualisation is essential to address any unique challenges that may occur over time.

Community support systems play an immense role in ongoing care and development in Ayurveda. Support groups and community gatherings enable a sense of security for those wanting to share their challenges, experiences, and successes in recovery. These interactions seem to improve the level of motivation and reduce feelings of isolation within recovery. The camaraderie, shared experiences and understanding within a group reinforces more commitment to sobriety and encourages further engagement and the maintenance of relationships.

Furthermore, the importance of integrating ongoing Ayurvedic care into post-treatment plans is highlighted to ensure that individuals have access to resources and receive the support they need to maintain their recovery journey. This approach addresses the immediate needs of the client and promotes long-term health and well-being, which ultimately leads to a more sustainable recovery process.

5.6 Conclusions Relating to the Achievement of the Aim and Objectives

The aim of this study was to identify the effective use of Ayurveda as an intervention model in social work for treating adults with a SUD.

Table 5.2 Achievement of the Aims and Objectives of the Study

The objectives	Evidence
1. Identify the prevention methods used in Ayurveda in addressing SUDs in adults.	The analysis of the selected studies indicated a focus on holistic approaches, lifestyle modifications, and the integration of Ayurvedic principles in preventing and managing substance use disorders (RQ1). Studies by Rathi and Rathi (2020) emphasised the importance of good conduct and psychotherapy as foundational elements in preventing SUDs, highlighting ethical living and mental health practices as key prevention strategies.
2. Identify the assessment methods used in Ayurveda in the diagnosis of adults with a SUD.	The literature revealed a multifaceted framework for assessing SUDs, which includes risk assessments, psychological evaluations and individualised treatment plans (RQ2). Rathi and Rathi (2020) discussed the significance of identifying risk factors such as genetics and environmental influences, while Wahab and Kalita (2024) highlighted the importance of assessing dosha imbalances and physical health to ensure accurate diagnosis and effective treatment.
3. Identify early intervention methods used in Ayurveda for addressing SUDs in adults.	The studies reviewed provided insights into early intervention strategies, focusing on the integration of Ayurvedic principles and practices to address SUDs at an early stage. This includes lifestyle modifications and the use of herbal remedies to support individuals in the initial phases of recovery.
4. Identify intervention methods used in Ayurveda in the treatment of adults with a SUD.	The research identified various intervention methods, including Panchakarma (detoxification), Shirodhara (oil therapy), and individualized treatment plans that incorporate dietary changes and herbal preparations. These methods were discussed in the context of their effectiveness in treating SUDs and restoring balance within the body.
5. Identify methods used in Ayurveda for ongoing/after care of adults with a SUD.	The studies highlighted the importance of ongoing care through practices such as regular follow-ups, lifestyle counselling, and continued use of Ayurvedic therapies to support long-term recovery. This includes the integration of holistic practices that promote mental and physical well-being, ensuring sustained post-treatment support for individuals.

5.7 Reflexivity

As a social worker working in the field of addiction treatment, the researcher's understanding of the difficulties surrounding SUDs is deeply influenced by her professional experience and personal beliefs. The challenges she identified within current Western methodologies often stem from their predominant focus on biomedical models, which tend to overlook the multifaceted nature of what addiction entails. While evidence-based practices are significant in providing structured interventions, they seem to be unsuccessful in addressing the emotional, spiritual and cultural dimension of recovery that is essential for holistic healing.

The researcher's interest in exploring an alternative approach, specifically Ayurveda, developed due to the recognition of the limitation and her personal cultural connection to the use of Ayurveda. Ayurveda offers a framework that resonates with her belief of treating the whole person rather than just addressing their symptoms. This aligns with the principles of social work and advocates a person-centred approach that considers the individual in a broader social context. The social work profession focuses on the understanding of the lived experiences, cultural backgrounds and systematic factors that contribute to the challenges of a client.

The findings presented in the research reveal a convincing case for the integration of holistic approaches in addiction treatment. The identified themes emphasise the nature of recovery and highlight the benefits of incorporating Ayurvedic principles into social work practice.

The importance of holistic care is a significant theme that aligns with the core values of social work. Findings suggest the Ayurvedic focus is on balancing the body, mind and spirit, which may improve the recovery process by addressing the physical, emotional and spiritual dimensions of an individual. This perspective recognises that addiction is more than a biomedical issue; instead, there is an interconnectedness of various factors such as psychological, social and cultural influences. The adoption of this approach enables social workers to support their clients better by encouraging resilience and promoting overall well-being.

Additionally, another important theme is the role of community and support systems in recovery. The research highlights the need for social connections and the impact of community-based interventions. It resonates with the social work principle of community engagement, showing the importance of building a supportive network.

The findings also point to the potential for Ayurveda to complement traditional Western modalities in treatment. It can provide a more well-rounded treatment plan that addresses the diverse needs of individuals. It is particularly relevant in the context of social work, as practitioners are usually tasked to navigate the challenges within a client's life. The combination enables a more personalised and culturally sensitive approach to treatment which enforces trust and rapport with clients.

As an addiction specialist, the researcher has observed that individuals struggling with addiction may also face a multitude of psychosocial issues such as trauma, socioeconomic inequalities, and social isolation. These factors may impact their recovery, thus highlighting the need for intervention that may extend beyond traditional Western methodologies. However, the researcher must confront her own biases regarding Western modalities; while she appreciates the structure that evidence-based practices provide, she often perceives them as overly mechanistic and detached from the human experience. This led to her seeking alternative approaches that prioritise empathy, connection, and resilience. Her experiences strengthened the idea that recovery is not a linear process but an ongoing journey requiring support and understanding.

In her exploration of Ayurveda over the years, the researcher has gravitated towards the holistic viewpoint as it spotlights the interrelation of body, mind and spirit. It aligns with the social work values of empowerment and self-determination, thereby encouraging individuals to take a proactive role in their own healing process.

The researcher recognizes the importance of maintaining a critical perspective. It is important to approach any treatment modality with an understanding of its limitations and the need for

cultural competence. As a social worker, she is committed to ensuring that the interventions provided as a practitioner are adapted to the unique needs of each individual, respecting their cultural beliefs and preferences. The commitment to cultural humility is part of building trust and rapport with clients to improve the therapeutic alliance.

Through this study the researcher desires to bridge the gap between Western methodologies and holistic practices. She believes that adopting a more consolidative approach with more effective and compassionate care can help support individuals in their recovery journey.

Social work principles highlight the importance of understanding individuals in their social context. In continuing to navigate her role as a social worker in the addictions field, she remains dedicated to exploring and integrating diverse healing practices that honour the difficulties of the human experience.

5.8 Limitations of The Study

While the exploration of Ayurvedic interventions for SUDs have provided promising insights, there have been inherent limitations in this study that were identified and acknowledged. These limitations have impacted the findings and the overall understanding of the effectiveness of Ayurveda in the context of addiction treatment.

The limited scope of research is one of the primary limitations of the study. Most of studies included in the SR focused on specific aspects of Ayurvedic treatment such as herbal remedies and dietary practices, without providing a view on the embodiment of the actual holistic approach within Ayurveda. Some studies examined the efficacy of certain Ayurvedic herbs in treating SUDs but did not explore the broader lifestyle changes and practices within the Ayurvedic philosophy such as yoga and meditation. The limited focus could result in an inadequate understanding of how to effectively integrate Ayurveda in treatment.

The studies reviewed also varied in their methodologies, sample sizes and outcomes. This

diversity can complicate the findings and limit any definite conclusions. Some studies used qualitative methods to gather personal narratives whilst others used quantitative measures to assess the treatment outcomes. This lack of consistency in research design can lead to inconsistencies in results and make it difficult to compare findings.

Additionally, the cultural context in which the studies were conducted was another limitation. Most of the research on Ayurvedic interventions for SUDs originates from India, where it is deeply rooted in cultural practices and beliefs. This raises questions in terms of the applicability of the findings in various contexts such as Western settings where Ayurveda might not be widely accepted or understood. The integration of Ayurvedic practices into the Western treatment frameworks could face resistance from practitioners or clients who might not be familiar with the principles. This culture gap may potentially hinder the effectiveness in the implementation of Ayurvedic interventions in diverse populations.

The absence of longitudinal studies is another limitation, as many of the included studies focused on short-term outcomes and did not capture the long-term effects of Ayurvedic interventions on SUD recovery. Some studies reported positive short-term outcomes, such as reduced cravings or the improvement of mental well-being but did not assess the sustainability of these effects over time. Longitudinal research is essential in understanding the impact of treatment modalities and identifying potential relapse dynamics.

The studies reviewed may also be subject to biases and conflicting variables that may influence the results. Participants in Ayurvedic treatment studies may vary in their levels of motivation, support systems and mental health issues and this can affect their treatment outcomes.

Furthermore, while the exploration of Ayurvedic interventions for SUDs offers valuable insights into alternative treatment modalities, many limitations have been identified. The limited scope of research, variability in study designs, cultural context, lack of longitudinal studies, and potential biases all contribute to the challenges of understanding the effectiveness of Ayurveda in addiction treatment. Addressing these limitations will enable the advancing of the field and future research to make it applicable and relevant across diverse populations.

5.9 Recommendations

A few recommendations for social work practice emanated from this study: specifically, social work policy and future research.

5.9.1 Recommendations for social work

The addition of Ayurvedic practices in social work, specifically in addressing SUDs, presents an opportunity to improve treatment outcomes by promoting holistic recovery. The findings of the SR enable recommendations for social work practitioners that are grounded in the ethics of social work.

Firstly, social workers could embrace the ethical principle of client empowerment by incorporating Ayurvedic principles into practice, as this encourages clients to take an active role in their recovery. Empowerment aligns with the ethic of promoting client self-determination, allowing individuals to make informed choices regarding their treatment options (Wahab & Kalita, 2024).

Secondly, training and education for social workers on Ayurvedic practices should be prioritised as this enables an ethical commitment to competence. Many social workers may not be familiar with the Ayurvedic principles or the application thereof. The need and provision for professional development opportunities, workshops and training sessions on Ayurveda can equip social workers with essential knowledge and skills for efficient implementation of these practices. This education can enable a better understanding of cultural competence and help social workers provide better quality service to diverse populations who may essentially benefit from Ayurvedic interventions.

The collaboration between traditional and Ayurvedic practitioners is important in terms of observing the ethical principles of collaboration and interdisciplinary practice. Social workers can play a central role in facilitating alliances that promote the integration of Ayurvedic

methods in traditional frameworks. The collaboration of both Ayurvedic practitioners, health care providers, and social workers can guarantee that physical and psychological needs of clients are addressed.

Additionally, future research should focus on evaluating the effectiveness of Ayurvedic intervention in social work practice, reflecting on the ethical commitment to evidence-based practice. The current literature suggests beneficial outcomes but there is a need for empirical studies that assess the long-term impact of Ayurvedic treatments on SUD recovery. Social workers can advocate for research funding and support initiatives that explore the integration of Ayurveda in addiction treatment, to contribute to the evidence base informed in practice.

Social workers could engage in advocacy efforts to promote the acceptance and recognition of Ayurvedic practices within the broader spectrum of modalities that are aligned with the ethical principle of social justice. Raising awareness of the benefits regarding Ayurveda for SUD treatment can help shift negative perceptions and encourage the addition of the approach in addiction recovery.

Furthermore, social workers can prioritise cultural competence in their practice by acknowledging and respecting the diverse background and beliefs of their clients. The understanding supports the improvement of the therapeutic relationship with clients and improves treatment outcomes. Social workers can incorporate culturally relevant practices and engage clients in discussions about their preferences and values which are tailored to the needs of the client.

The integration of Ayurvedic practices in social work offers an avenue for improving addiction treatment. Embracing a holistic approach, providing education and training, enabling interdisciplinary collaboration, supporting research, engaging in advocacy, and prioritising cultural competence will allow social workers to play a crucial role in promoting the effectiveness of Ayurveda in addressing SUDs.

5.9.2 Recommendations for policy relating to treatment of SUDs

The integration of Ayurvedic practices into the treatment of SUDs requires a comprehensive policy framework that supports the holistic approach and the utilisation in conventional healthcare and therapy. Policymakers play an essential role in facilitating this integration, allowing diverse treatment modalities and making them accessible and effective for those seeking recovery. There are a few recommendations that could help guide policymakers in promoting the use of Ayurveda in SUD treatment.

Policymakers such as the Department of Health and the Department of Social Development can develop clear regulatory frameworks governing the practice of Ayurveda within the addictions field and healthcare systems. This may include establishing standards for training and certification of Ayurvedic practitioners to ensure that they possess the knowledge and skills for providing safe and effective care.

The promotion of research and the investment in the facts regarding the efficacy of Ayurvedic interventions for SUDs is essential. Policymakers could assign potential funding for studies that explore the outcomes of Ayurvedic treatments. The support of research initiatives will contribute to the development of the evidence base, ensuring that treatment approaches are grounded in empirical evidence.

They could consider integrating Ayurvedic practices into public health proposals that focus on prevention and treatment of SUDs. This may involve the application of Ayurvedic education into community health programmes, promoting awareness of holistic approaches to recovery and providing resources for individuals seeking alternative treatment options. The addition of Ayurveda in public health strategies can allow better accessibility of diverse treatment modalities and empower individuals to make informed choices about their recovery.

Encouraging interdisciplinary cooperation between Ayurvedic practitioners and conventional Westernised practitioners is important in terms of creating an in-depth treatment approach for SUDs. Policymakers can facilitate partnerships between these two groups and promote

interdisciplinary training and communication. This collaboration can ensure that all needs are addressed, and treatment outcomes are improved.

To enhance the accessibility to Ayurvedic interventions, policymakers could also advocate for health insurance coverage for the treatment within healthcare plans and medical aids. This could reduce any financial burden for those seeking holistic care and promote the acceptance of Ayurveda as a legitimate treatment modality.

Policymakers can initiate educational campaigns to raise awareness of the benefits of holistic health approaches. These campaigns can target healthcare professionals and the public, to promote the importance of integrating mind, body and soul in recovery.

Furthermore, policymakers should prioritise cultural competence training for healthcare providers to enable them to be more equipped for addressing the diverse needs of clients who seek Ayurvedic treatments. It could include education on the principles of Ayurveda, its cultural significance, and how to effectively communicate with clients about their preferences for treatment.

5.9.3 Recommendations for future research relating to SUD treatment

The exploration of Ayurveda as a treatment modality for SUDs is still growing in terms of development, and further research is vital if health professionals are to fully understand Ayurveda's efficacy, mechanisms, and integration into conventional treatment frameworks.

Future research could prioritise the design and implementation of randomised controlled trials (RCTs) evaluating the effectiveness of Ayurvedic interventions for SUDs. RCTs provide evidence regarding the effectiveness of

treatment modalities. The comparison between Ayurvedic treatments and Westernised therapies can help assess the relative benefits and potential collaborations between these approaches.

Understanding and exploring the underlying mechanisms through which Ayurvedic treatments apply their effects on SUDs is important in validating its use. Future studies could identify and explore the biochemical, psychological, and social mechanisms contributing to the success of Ayurvedic interventions. This involves exploring how the Ayurvedic practices influence neurobiological pathways linked with addiction and recovery.

Research could potentially focus on the long-term outcomes of individuals using Ayurvedic treatment for SUDs. Longitudinal studies can provide insights into sustainability of recovery, relapse rates and quality of life following Ayurvedic interventions.

Qualitative research that explores the experiences and perspectives of individuals undergoing Ayurvedic treatment can provide insight into the benefits and challenges associated with the approach. These studies could highlight the personal narratives of recovery. This qualitative data can complement quantitative findings and inform the development towards more person-centred treatment models.

Future research can assess and explore the practicalities and outcomes of integrating Ayurvedic practices into conventional treatment settings for SUDs. This may include examining the training needs of practitioners, the development of interdisciplinary treatment protocols and the impact of the client's outcomes.

Research should also consider the cultural and contextual factors influencing the acceptance and effectiveness of Ayurvedic treatments for SUDs. Studies exploring cultural beliefs, social norms and community resources can impact the utilisation of Ayurveda and provide insight into tailoring the intervention.

Furthermore, future research can assess the cost-effectiveness of Ayurvedic interventions compared to Westernised treatment options. An understanding of the economic implications of integrating Ayurveda into treatment plans can inform policymakers and practitioners about the potential benefits. Cost-effectiveness analyses can help justify funding and support for the Ayurvedic programmes.

5.10 Conclusion

This chapter has provided a thorough combination of the findings from the SR on the role of Ayurvedic interventions in addressing SUDs. The SR methodology was selected for its ability to integrate diverse studies, thereby providing a holistic analysis on the effectiveness of Ayurvedic practices. This is relevant in a field characterised by fragmented research and variability in study quality.

The findings presented the holistic nature of Ayurveda, including physical, mental, and spiritual well-being. This approach is essential in the context of SUD treatment, as it recognises the interconnectedness of physical, psychological, and social factors in recovery. The SR revealed that Ayurvedic interventions play a role in promoting recovery and well-being amongst those struggling with SUDs.

Moreover, the SR facilitated the identification of gaps in existing literature, specifically around empirical evidence. This is important for guiding future research efforts aimed at validating and expanding findings related to the efficacy of Ayurvedic practices. The insight from this exploration can enable practitioners, policymakers, and researchers to integrate through the Ayurvedic lens.

The chapter also acknowledges the limitations, including potential biases in selected studies and variability in research designs. The acknowledgment of these limitations can guide future research and ensure that findings are interpreted within context.

The cultural context in which the studies were conducted is another limitation, as most research regarding Ayurvedic interventions originates from India, which raises questions regarding the applicability in Western settings where this might not be widely accepted yet.

Future research should focus on assessing the practicalities and outcomes of employing Ayurvedic practices in Westernised conventional settings, considering cultural and contextual factors influencing the acceptance and effectiveness of these interventions.

Additionally, longitudinal studies are important in terms of understanding long-term effects of Ayurvedic interventions on SUD recovery as more short-term outcomes were included and the sustainability of the effects were not explored.

Furthermore, although the SR methodology was not a practical choice, it was a necessary step to safeguard the relevance of the findings. The insight and exploration of the review and themes enabled a clear indication of the effectiveness and response within the dialogue of ethics, social work, policy and Ayurvedic intervention within SUDs. The advocacy for further research into the efficacy of specific Ayurvedic interventions aims to contribute to the inclusion of addiction treatment and enrich the therapeutic landscape by promoting a more in-depth understanding of recovery and addiction.

5.11 Final Conclusion

This research highlights a thorough exploration of the role of Ayurveda in addressing SUDs, combines findings from a systematic review (SR) of existing literature, and provides recommendations for future research. The study has highlighted the potential of Ayurvedic practices as an approach to Westernized conventional treatment modalities, and pointed to the need for further exploration into Ayurvedic practices efficacy, mechanisms, and integration into holistic care frameworks.

The research objectives and questions such as the prevention methods, assessment methods, early intervention methods, intervention methods, and methods used in Ayurveda for ongoing/after care of adults with a SUD were clearly defined and this allowed a detailed examination of the existing literature.

The position of the researcher in relation to the methodology and findings reflect the potential biases and influences that may have shaped the research process. This is necessary for ensuring transparency and integrity in the research, as this allows for a better understanding of the findings and their implications.

This study highlighted the importance of understanding the cultural context in which SUDs occur. The recognition of diverse beliefs and practices surrounding addiction and recovery allowed the study to explore how Ayurvedic principles could be incorporated into existing treatment frameworks to enhance their effectiveness.

The groundwork was laid for the exploration of Ayurveda's historical context, principles, and its relevance to contemporary addiction treatment.

Furthermore, the research assessed the cultural factors that influence the acceptance and effectiveness of Ayurvedic treatments. The understanding of these factors is essential for adapting interventions to specific populations and resonating with individuals' beliefs and values. This study highlighted the need for a thorough understanding of Ayurveda's role in addiction treatment.

While this study indicated the potential for Ayurvedic interventions, it also exposed significant gaps in the literature, including small sample sizes, lack of control groups, and insufficient longitudinal data to assess long-term efficacy.

The insights gained from the SR and recommendations for future research highlight the need for randomised controlled trials (RCTs) that would evaluate the effectiveness of Ayurvedic

interventions, an exploration of underlying mechanisms of action, and of long-term outcomes for individuals using Ayurvedic treatment for SUDs. Additionally, the study highlights the importance of qualitative research in capturing clients' experiences and perspectives and the need to assess the combination of Ayurveda into Westernised conventional treatment settings.

The findings of this research have significant implications for the social work practice. Social workers play a primary role in supporting individuals with SUDs and the integration of Ayurvedic practices could enhance the holistic care provided to clients.

Additionally, the exploration of cultural factors influencing the acceptance and effectiveness of Ayurvedic treatments highlights the importance of cultural competence in social work practice. The understanding of beliefs and values in terms of the clients can help the development of more effective and culturally sensitive treatment strategies.

Social workers can advocate for the inclusion of Ayurvedic practices in treatment plans, and safeguard clients' access to a range of therapeutic options that resonate with their cultural backgrounds. In so doing, the focus will be on holistic care, aligning with the core values of social work and prioritises the well-being of individuals within their social backgrounds. The integration of Ayurveda into social work practice with adults with a SUD can empower clients by encouraging a sense of agency and self-efficacy.

The recommendations for future research are necessary for advancing the understanding of Ayurveda's role in SUD treatment. Conducting RCTs and longitudinal studies will provide necessary empirical evidence to validate the efficacy of Ayurvedic interventions and assess their long-term impact.

Qualitative research that captures the lived experiences of individuals experiencing Ayurvedic treatment will enhance the existing literature. It may provide valuable insights into the benefits and challenges associated with this approach. This can inform the development of more person-centred treatment models that prioritise the needs and preferences of clients (Kumawat et al., 2023).

In conclusion, this research has showed the potential of Ayurveda as a valuable approach in the treatment of SUDs. Continued exploration of the efficacy, mechanisms, and integration of Ayurvedic practices within conventional treatment frameworks is fundamental as the collaboration of approaches that bridge traditional and modern medicine can increase the care provided to individuals and contribute to the ongoing evolution of holistic health practices. The collaboration of the approaches that bridge traditional and modern medicine can increase the care provided to individuals and contribute to the ongoing evolution of holistic health practices.

The integration of Ayurveda into social work practice supports the profession's commitment to holistic care by offering a pathway for addressing the needs of individuals with SUDs. As the field of addiction treatment evolves, adopting diverse therapeutic modalities will be necessary for promoting recovery. The use of Ayurvedic principles such as individualised treatment plans, lifestyle modifications, and the importance of mental and emotional well-being can balance existing treatment strategies. Furthermore, ongoing research and encouragement for the acceptance of Ayurvedic practices within mainstream healthcare can facilitate policy changes which support the integration of holistic approaches. This will improve the effectiveness of SUD treatment, contributing to a broader understanding of health and wellness that exceeds conventional boundaries.

Finally, the synthesis of Ayurvedic wisdom with modern therapeutic practices allows the creation of a more inclusive and effective framework for addressing the challenges of addiction development.

REFERENCE LIST

Alvi, M. (2016). *A Manual for selecting sampling techniques in research*. Retrieved from Munich Personal RePEc. [Online] available at: <https://mpra.ub.uni-muenchen.de/70218/> [Accessed 4 September 2021].

Anfara, V. A., Brown, K. M. and Mangione, T. L. (2002). Qualitative Analysis on stage: Making the research process more public. *Educational Researcher*, 31(7), 28-38.

Aveyard, H. (2022). Showcasing the range of literature reviews in nursing. *Journal of Clinical Nursing*.

Baumeister, R. F. (2013). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497-529.

Bitsch, V. (2005). Qualitative Research: A grounded theory example and evaluation criteria. *Journal of Agribusiness*, 23(1), 75-91.

Borenstein, M., Hedges, L.V., Higgins, J.P.T. & Rothstein, H.R. (2011). *Introduction to Meta-*

Analysis. Wiley. Boru, T. (2018). *Chapter Five Research Design and Methodology*.

University of South Africa.

Boshears, P., Boeri, M., and Harbry, L. (2011). Addiction and sociality: Perspectives from methamphetamine users in suburban USA. *Addiction Research & Theory*, 19, 289–301.

Bramer, W.M., Giustini, D., de Jonge, G., Holland, L., & Bekhuis, T. (2017). De-duplication of database search results for systematic reviews in EndNote. *Journal of the Medical Library Association*, 105(3), 284-289.

Braun, V. & Clarke, V. (2021). Reflecting on reflexive thematic analysis. *Qualitative Research in Psychology*, 18(3), pp. 328-352. doi:10.1080/14780887.2020.1768816.

- Bryman, A. (2016). *Social Research Methods*. 5th ed. Oxford: Oxford University Press.
- Burns, N. and Grove, S. K. (2003). *Study Guide for Understanding Nursing Research*. Philadelphia: Saunders.
- Carpenter, D. (2019). *A Little Bit of Ayurveda: An Introduction to Ayurvedic Medicine*. United States: Sterling Ethos.
- Charmaz, K. (2014). *Constructing Grounded Theory*. 2nd ed. London: Sage Publications.
- Chaudhary, A. and Singh, N. (2011). Contribution of world health organisation in the global acceptance of Ayurveda. *Journal of Ayurveda and integrative medicine*, 2(4), p.179.
- Compton, W., Jones, C. and Baldwin, G. (2016). Relationship between nonmedical prescription opioid use and heroin use. *The New England Journal of Medicine*, 374, 154–163.
- Creswell, J.W. & Plano Clark, V.L. (2011). *Designing and Conducting Mixed Methods Research*. 2nd ed. Thousand Oaks, CA: Sage Publications.
- Creswell, J.W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 4th ed. Thousand Oaks, CA: Sage Publications.
- Das, K., Kumawat, D.K., Sharma, A. and Pandey, N. (2023). The role of Ayurveda in management of nicotine addiction-Critical review. *Journal of Indian System of Medicine*, 11(3), pp.169-175.
- Deeks, J. J., Bossuyt, P. M., Leeflang, M. M., & Takwoingi, Y. (Eds.). (2023). *Cochrane handbook for systematic reviews of diagnostic test accuracy*. John Wiley & Sons.
- Denzin, N.K. & Lincoln, Y.S. (2011). *The SAGE Handbook of Qualitative Research*. 4th ed. Thousand Oaks, CA: Sage Publications.
- Durrant, R., Adamson, S., Todd, F. and Sellman, D. (2009). *Drug use and addiction: Evolutionary perspective*.

Australian & New Zealand Journal of Psychiatry, 43, 1049–1056.

Edwards, S. (2005). Research participation and the right to withdraw. *Bioethics*, 19(1), 112-30.

Felipe, F. and Illigens, B. (2018). *Critical Thinking in Clinical Research: Applied Theory and Practice Using Case Studies*. First Edition. Oxford University Press.

Field, A. 2018. *Discovering Statistics Using IBM SPSS Statistics*. 5th ed. London: Sage Publications.

Fineout-Overholt, E. (2008). How systematic reviews can foster evidence-based clinical decisions. *Worldviews on Evidence-Based Nursing*, 5(1), 1-3.

Flick, U. (2018). *An Introduction to Qualitative Research*. 6th ed. London: Sage Publications.

Fonow, M. M. and Cook, J. A. (2005). Feminist Methodology: New Applications in the Academy and Public Policy. *Feministic Approaches to Social Science*, 30(4), 2211-2236.

Frawley, D. and Ranade, S., (2004). *Ayurveda, nature's medicine*. Motilal Banarsidass Publ.

Garcia-Doval, I. (2017). Systematic reviews: Let's keep them trustworthy. *British Journal of Dermatology*, 176(1), 1-2.

Gayle, L. (2003). *Feministic Research in Theory and Practice*. Buckingham. Open University Press.

Glasgow, R.E & Estabrooks, P.E. (2018). Peer reviewed: Pragmatic applications of RE-AIM for health care initiatives in community and clinical settings. *Preventing chronic disease*, 15.

Gordon, K.J. (2016). *The Forever Fight: On Drugs, Alcohol and the Cycle of Addiction*. 5D Media Publishing: New York.

Guba, E.G. & Lincoln, Y.S. (1994). 'Competing Paradigms in Qualitative Research', in

N.K. Denzin & Y.S. Lincoln (eds.) *Handbook of Qualitative Research*. Thousand Oaks, CA: Sage Publications, pp. 105-117.

Halpern, M. (2016). *Principles of Ayurvedic medicine*. Nevada City, CA: California College of Ayurveda.

Hankey, A. (2005). The scientific value of Ayurveda. *Journal of Alternative & Complementary Medicine*, 11(2), pp.221-225.

Higgins, J. P. T., & Green, S. (2011). *Cochrane Handbook for Systematic Reviews of Interventions*. Version

5.1.0. The Cochrane Collaboration.

Holloway, L. and Wheeler, S. (2002). *Qualitative Research in Nursing*. Malden, MA: Blackwell.

Ioannidis, J. P. A. (2005). Why Most Published Research Findings Are False. *PLoS Medicine*, 2(8), e124. doi: 10.1371/journal.pmed.0020124.

Jayasundar, R. (2010). Ayurveda: a distinctive approach to health and disease. *Current Science*, 98, 908–914.

Johnson, R.B. & Onwuegbuzie, A.J. (2004). 'Mixed Methods Research: A Research Paradigm Whose Time Has Come', *Educational Researcher*, 33(7), pp. 14-26.

Kalant, H. (2009). What neurobiology cannot tell us about addiction. *Addiction*, 105, 780–789.

Karim, R. and Chaudhri, P. (2012). Behavioral addictions: An overview. *Journal of Psychoactive Drugs*, 44(1), 5–17.

Kauer, J. A. and Malenka, R. C. (2007). Synaptic plasticity and addiction. *Nature Reviews Neuroscience*, 8, 844– 858.

Ketabi, S. (2017). *Idiot's Guides; Ayurveda*. United States: Dorling Kindersley Limited.

Khan, K. S., Kunz, R., Kleijnen, J., & Antes, G. (2003). Five steps to conducting a systematic review. *Journal of the Royal Society of Medicine*, 96(3), 118-121.

Kumawat, B., Sharma, A., Kumawat, D.K. and Das, K. (2023). A Critical Review to Understand the Role of Ayurveda in Management of Opium Withdrawal. *AYUHOME*, 10(2), pp.68-73.

Lad, V. (1997). *Ayurveda: The ancient Indian healing tradition*. Rockport: Element Books, Inc.

Laher, S., & Hassem, T. (2020). Doing systematic reviews in psychology. *South African Journal of Psychology*, 50(4), 450-468.

Lake, J., & Spiegel, D. (2007). *Complementary and alternative treatments in mental health Care*. Arlington: American Psychiatric Publishing, Inc.

Leela, D. (2022). *Yoga of Recovery: Integrating Yoga and Ayurveda with Modern Recovery Tools for Addiction*. Singing Dragon.

Liberati, A., Altman, D.G., Tetzlaff, J., Mulrow, C., Gøtzsche, P.C., Ioannidis, J.P.A., & Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate healthcare interventions: explanation and elaboration. *Journal of Clinical Epidemiology*, 62(10), e1-e34.

Magill, E. (2011). *Drug Information for Teens: Health Tips About the Physical and Mental Effects of Substance Abuse*. Omnigraphics Publishers.

Mamidi, P. and Gupta, K. (2023). Food cravings, disordered eating behaviour and alcohol abuse in Bhutonmadas- An exploratory review. *J Psychol Clin Psychiatry*, 14(1), pp.11-17.

Marsh, T.N., Coholic, D., Cote-Meek, S. and Najavits, L.M. (2015). Blending Aboriginal and Western healing methods to treat intergenerational trauma with substance use disorder in Aboriginal peoples who live in North Eastern Ontario, Canada. *Harm reduction Journal*, 12(1): 1-12.

Mason, J. (2002). *Qualitative Researching*. London: SAGE.

Mason, J. (2018). *Qualitative Researching*. 3rd ed. London: Sage Publications.

McGaghie, C., Bordage, G. and Shea, J.A. (2001). Problem Statement, Conceptual Framework, and Research Question. *Journal of the Association of American Medical Colleges*, 76(9): 923-924.

Modir, S., Munoz, G. (2018). *Integrative Addiction and Recovery*. Oxford University Press.

Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G. & The PRISMA Group. 2009. Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *PLoS Med*, 6(7), e1000097.

Monash University Library. (n.d.). *Systematic Review Guide*. Retrieved October, 2023 from, <https://guides.lib.monash.edu/systematic-review/home>

Mosel, S. and Sharp, A. (2023). *The Matrix Model of Addiction Treatment: A Guide*. American Addiction Centers.

Narayanaswamy, V., (1981). Origin and development of ayurveda:(a brief history). *Ancient science of life*, 1(1), p.1.

Newman, M., & Gough, D. (2020). Systematic reviews in educational research: Methodology, perspectives and application. *Systematic reviews in educational research: Methodology, perspectives and application*, 3-22.

Ninivaggi, F. (2008). *Ayurveda: A comprehensive guide to traditional Indian medicine for the West*. Lanham, MD: Rowman & Littlefield Publishers, Inc.

Nisha, C.N. and Hegde, R. (2023). Ayurvedic management of Alcohol Use Disorder. *Journal of Ayurveda and Integrated Medical Sciences*, 8(11), pp.163-167.

Pang, T. (2004). The importance of systematic reviews in evidence-based practice. *Journal of*

Evidence-Based Medicine, 5(1), 1-5.

Parasuraman, S., Thing, G.S. and Dhanaraj, S.A. (2014). Polyherbal formulation: Concept of ayurveda. *Pharmacognosy reviews*, 8(16), p.73.

Patwardhan, B. (2000). Ayurveda: The designer medicine. *Indian drugs*, 37(5), pp.213-227.

Patwardhan, B. and Vaidya, A.D. (2009). Ayurveda: scientific research and publications. *Current Science*, 97(8), pp.1117-1121.

Patwardhan, B., Vaidya, A.D. and Chorghade, M., 2004. Ayurveda and natural products drug discovery. *Current science*, pp.789-799.

Patwardhan, B., Warude, D., Pushpangadan, P. and Bhatt, N. (2005). Ayurveda and traditional Chinese medicine: a comparative overview. *Evidence-based complementary and alternative medicine*, 2, pp.465-473.

Petrie, A., Bulman, J. S., & Osborn, J. F. 2003. Systematic reviews and meta-analyses. *British Dental Journal*, 194(2), 73-78.

Petticrew, M. & Roberts, H. (2006). *Systematic Reviews in the Social Sciences: A Practical Guide*. Blackwell Publishing.

Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., & Rodgers, M. (2006). *Guidance on the conduct of narrative synthesis in systematic reviews*. ESRC Methods Programme.

Raj, A.S., Yadava, R.K., Rahul, N. and Arshathjyothi, P. (2023). Scope of Ayurvedic intervention in the management of alcohol withdrawal syndrome. *International Journal of Ayurveda Research*, 4(4), pp.242-247.

Rathi, R.B. and Rathi, B.J. (2020). Ayurveda perspectives toward prevention and management of nicotine and alcohol dependence: A review. *Journal of Indian System of Medicine*, 8(1), pp.14-20.

Rathi, R.B. and Rathi, B.J. (2021). Randomized Controlled trial on Ayurveda Interventions with Nicotexchewing Gum for De-Addiction of Tobacco Products in School Going Children of Salod and sawangi, Wardha-Study protocol. *Annals of the Romanian Society for Cell Biology*, pp.3388-3395.

Ravishankar, B., & Shukla, V. J. (2007). Indian systems of medicine: A brief profile. *African Journal of Traditional, Complementary, and Alternative Medicines*, 4, 319–337. Retrieved from www.africanethnomedicines.net

Sackett, D. L. (1996). Evidence-based medicine. *British Medical Journal*, 312(7023), 71-72.

Schwandt, T. A., Lincoln, Y. S. and Guba, E. G. (2007). Judging Interpretations: But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. *New Directions for Evaluation*, 11-25.

Scott, A. (2013). *Ethical Principles in Health Care Research*.

Shamseer, L., Moher, D., Clarke, M., Ghersi, D., Liberati, A., & Petticrew, M. (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation.

Sharma, A., Yadav, S. and Vishnoi, R. (2022). Ayurvedic Management of Alcohol Withdrawal Syndrome-Case Series. *International Journal of AYUSH Case Reports*, 6(1), pp.135-146.

Sharma, H., Chandola, H. M., Singh, G., & Basisht, G. (2007). Utilization of Ayurveda in health care: An approach for prevention, health promotion, and treatment of disease. Part 2– Ayurveda in primary health care. *The Journal of Alternative and Complementary Medicine*, 13, 1135–1150. doi:10.1089/acm.2007.7017-B.

Sharma, R. and Shukla, G.D.(2022). Managing Symptoms of Substance Use Disorder with Nasya and Ayurvedic Medicines: A Case Study. *International Journal of AYUSH Case Reports*, 6(3), pp.325-333.

Sharma, V., (2023). *Ayurveda Advantage*. Penguin Random House India Private Limited.

Shilpa, S., & Venkatesha Murthy, C. G. (2011). Understanding personality from Ayurvedic perspective for psychological assessment: A case. *An International Quarterly Journal of Research in Ayurveda*, 32, 12–19. doi:10.4103/0974-8520.85716.

Silverman, D. (2020). *Qualitative Research*. London: SAGE Publications.

Singh, U., Singh, S. and Ram, H. (2023). Homoeopathic Perspective in the Management of Substance Use Disorders: A Systematic Review. *Journal of Complementary and Alternative Medical Research*, 22(4), pp.33-47. South African Community Epidemiology Network on Drug Use. (2022). *GP and NR Symposium Presentation*. Phase 51.

Stanger, L., Weber, L. (2018). *The Definitive Guide to Addiction Interventions: A Collective Strategy*. Routledge.

Sussman, S., & Sussman, A. 2011. Considering the definition of addiction. *International Journal of Research in Public Health*, 8, 4025–4038.

Talcherkar, A. (2018). *Practical Application of Ayurveda in Addiction Treatment*.

Talcherkar, A. (2019). 'Practical application of Ayurveda in addiction treatment', *Ayurveda Journal*, 10(1), pp. 15-22. doi:10.1016/j.ayur.2019.01.003.

Tashakkori, A. & Teddlie, C. (2010). *SAGE Handbook of Mixed Methods in Social & Behavioral Research*. 2nd ed. Thousand Oaks, CA: Sage Publications.

Tronto, J. C. (1993). *Moral Boundaries: A Political Argument for an Ethic of Care*. New

York: Routledge. Tronto, J.C. (2013). *Caring Democracy: Markets, Equality, and Justice*.

New York: University Press.

Tubaki, B.R. and Prasad, B.S. (2022). *Ayurveda fundamentals and science—A perspective*.

AYU (An international quarterly journal of research in Ayurveda), 43(2), pp.65-70.

Turner, F. (2017). *Social Work Treatment: Interlocking Theoretical Approaches*. Oxford University Press. Varier, M.R. (2020). *A Brief History of Ayurveda*. Oxford University Press.

Verma, S. (2023). Substance Use Disorders and Role of Complementary and Integrative Medicine/Functional Medicine. *Child and Adolescent Psychiatric Clinics*, 32(2), pp.217-241.

Wahab, A. and Kalita, R. (2023). *Alcoholism (Madatyaya) - a Descriptive View and its Management Through Ayurveda*.

Wells, G., Shea, B., O'Connell, D., Peterson, J., Welch, V., Losos, M., & Tugwell, P. (2014). The Newcastle- Ottawa Scale (NOS) for assessing the quality of nonrandomized studies in meta-analyses. Available at: http://www.ohri.ca/programmes/clinical_epidemiology/oxford.asp [Accessed 2 Sep. 2024].

Wilson, B. (2019). *Alcoholics Anonymous: The Big Book*. New York: Dover Publications.

Withania Somnifera (L.) Dunal-Modern perspectives of an ancient Rasayana from Ayurveda. *Journal of ethnopharmacology*, 264, p.113157.

Woodward, T.J. (2019). *The Conscious Recovery Method: Addiction Treatment Facilitator's Manual*. Independent Publisher.

Wright, J., Naveed, S., Zeshan, M. (2016). How to conduct a systematic review: A narrative literature review. *Cureus*, 8(11), e864. DOI: 10.7759/cureus.864.

Wujastyk, D. and Smith, F.M. eds., (2013). *Modern and global Ayurveda: pluralism and paradigms*. State University of New York Press.

Young, J.M & Solomon, M.J. (2009). *How to critically appraise an article*. *Nature clinical practice Gastroenterology & Hepatology*, 6(2), pp.82.

Annexure A: Studies Identified and Screened

Study	Author(s) and year of publication	Title	Included (Yes/No)
1	Talcherkar, A. (2019).	Practical application of Ayurveda in addiction treatment.	Yes
2	Wahab, A., and Kalita, R. (2024).	Alcoholism (Madatyaya) - A Descriptive View and its Management Through Ayurveda.	Yes
3	Sharma, A., Yadav, S., and Vishnoi, R. (2022).	Ayurvedic Management of Alcohol Withdrawal Syndrome - Case Series.	Yes
4	Mamidi, P., and Gupta, K. (2023).	Food cravings, disordered eating behaviour and alcohol abuse in Bhutonmadas - An exploratory review,	Yes
5	Sharma, R., and Shukla, G. D. (2022).	Managing Symptoms of Substance Use Disorder with Nasya and Ayurvedic Medicines: A Case Study.	Yes
6	Nisha, C. N., and Hegde, R. (2023).	Ayurvedic management of Alcohol Use Disorder.	Yes
7	Raj, A. S., Yadava, R. K., Rahul, N., and Arshathjyothi, P. (2023).	Scope of Ayurvedic intervention in the management of Alcohol Withdrawal Syndrome.	Yes
8	Rathi, R.B., and Rathi, B.J. (2021).	Randomized Controlled trial on Ayurveda Interventions with Nicotexchewing Gum for De-Addiction of Tobacco Products in School Going Children of Salod and sawangi, Wardha- Study protocol.	Yes

9	Singh, Uttam, Shweta Singh, and Hanuman Ram. (2023).	Homoeopathic Perspective in the Management of Substance Use Disorders: A Systematic Review.	Yes
10	Das, K., Kumawat, D. K., Sharma, A., and Pandey, N. (2023).	The role of Ayurveda in management of nicotine addiction - Critical review.	Yes
11	Kumawat, B., Sharma, A., Kumawat, D. K., and Das, K. (2023).	A Critical Review to Understand the Role of Ayurveda in Management of Opium Withdrawal.	Yes
12	Rathi, R. B., and Rathi, B. J. (2020).	Ayurveda perspectives toward prevention and management of nicotine and alcohol dependence: A review.	Yes
13	Chaudhary, A., and Singh, N., (2011).	Contribution of world health organisation in the global acceptance of Ayurveda.	No
14	Jayasundar, R. (2010).	Ayurveda: a distinctive approach to health and disease.	No
15	Leela, D. (2022).	Yoga of Recovery: Integrating Yoga and Ayurveda with Modern Recovery Tools for Addiction.	No
16	Narayanaswamy, V. (1981).	Origin and Development of Ayurveda.	No
17	Patwardhan, B., and Vaidya, A.D. (2009).	Ayurveda and natural products drug discovery.	No
18	Varier, M.R., 2020	A Brief History of Ayurveda.	No
19	Verma, S., 2023.	Substance Use Disorders and Role of Complementary and Integrative Medicine/Functional Medicine.	No

20	Wujastyk, D., and Smith, F.M. eds. (2013).	Modern and global Ayurveda: pluralism and paradigms.	No
21	Carpenter D. (2019).	A Little Bit of Ayurveda: An Introduction to Ayurvedic Medicine.	No
22	Halpern, M. (2016)	Principles of Ayurvedic medicine.	No
23	Ketabi, S. (2017).	Idiot's Guides; Ayurveda.	No
24	Lad, V. (1997).	Ayurveda: The ancient Indian healing tradition.	No
25	Ninivaggi, F. (2008).	Ayurveda: A comprehensive guide to traditional Indian medicine for the West.	No
26	Sharma, H., Chandola, H.M., Singh, G., and Basisht, G. (2007).	Utilisation of Ayurveda in health care: An approach for prevention, health promotion, and treatment of disease. Part 2 – Ayurveda in primary health care.	No
27	Shilpa, S., and Venkatesha Murthy, C.G. (2011).	Understanding personality from Ayurvedic perspective for psychological assessment: A case.	No

Annexure B: RE-AIM Appraisal Tool

R - Reach (Responsibility)

Score: yes = 1 and no - 0	1	0
Does the article/conference paper/thesis indicate who the programme is intended for (Inclusion and Exclusion criteria)?		
Does the article/conference paper/thesis report on the representativeness of the target population?		
Does the article/conference paper/thesis report on participation rate?		

E - Effectiveness (Attentiveness, Responsiveness & Integrity)

Score: yes = 1 and no – 0	1	0
Does the article/conference paper/thesis report on whether the intervention program achieves the intended objective(s)?		
Does the article/conference paper/thesis report on the outcomes of the intervention?		
Does the article/conference paper/thesis report on the limitations/challenges/gaps of the intervention(s)?		
Does the article/conference paper/thesis report on the reasons why clients terminate /prematurely exit the program?		

A - Adoption (Attentiveness, Responsibility & Responsiveness)

Score: yes = 1 and no - 0	1	0
Does the article/conference paper/thesis describe the intervention setting/field of the practice/ discipline?		
Does the article/conference paper/thesis report on the adoption of the intervention by the service user?		
Does the article/conference paper/thesis report on the adoption of the intervention by the service provider?		
Does the article/conference paper/thesis report on who delivered the intervention program/field/discipline of the practitioner?		
Does the article/conference paper/thesis report on the level of expertise of the service provider(s)?		

I - Implementation (Responsiveness, Responsibility & Integrity)

Score: yes = 1 and no - 0	1	0
Does the article/conference paper/thesis report on the duration and frequency /duration of the interventions?		
Does the article/conference paper/thesis report on the staff (one discipline vs interdisciplinary) involved in delivering the program?		
Does the article/conference paper/thesis report on the cost implication of the intervention program?		
Does the article/conference paper/thesis report on intended and delivered interventions?		

M- Maintenance (Responsibility, Attentiveness and Responsiveness)

Score: yes = 1 and no – 0	1	0
Does the article/conference paper/thesis report on long term effects of the intervention (after six months)		
Does the article/conference paper/thesis report on the indicators used for intervention follow-up?		
Does the article/conference paper/thesis report on the cost of maintaining the programme?		

The score range for Re-Aim framework will be as follows:

0 - 33% = Poor	34% - 65% = Satisfactory	66% - 100% = Very Good
----------------	--------------------------	------------------------

Adapted from: Young and Solomon (2009).

Annexure C: Methodological Quality of Studies

#	AUTHOR(S) & YEAR OF PUBLICATION	REACH			EFFECTIVENESS				ADOPTION				IMPLEMENTATION				MAINTENANCE			SCORE /19	% SCORE	SCORE CATEGORY	
		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18				Q19
No	Talcherkar, A. (2019).	1	0	0	0	0	1	0	1	0	0	1	0	1	1	1	0	0	0	0	7	37%	Medium
1	Wahab, A., & Kalita, R. (2024).	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	1	0	0	0	5	26%	Low
2	Sharma, A., Yadav, S., & Vishnoi, R. (2022).	0	0	0	1	1	1	0	1	0	0	0	0	1	0	0	1	0	0	0	6	32%	Medium
3	Mamidi, P. and Gupta, K. (2023).	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%	Low
4	Sharma, R., & Shukla, G. D. (2022).	1	0	0	1	1	1	0	1	0	0	1	0	1	0	0	1	0	0	0	8	42%	Medium
5	Nisha, C. N., & Hegde, R. (2023).	0	0	0	1	1	0	0	1	0	0	1	0	1	0	0	1	0	0	0	6	32%	Medium
6	Raj, A. S., Yadava, R. K., Rahul, N., & Arshathjyothi, P. (2023).	0	0	0	1	1	0	0	1	0	0	1	0	1	0	0	1	0	0	0	6	32%	Medium
7	Rathi, R.B., Rathi, B.J. (2021).	1	0	0	1	1	0	0	1	0	0	1	0	1	0	0	1	0	1	0	8	42%	Medium
8	Singh, Uttam, Shweta Singh, and Hanuman Ram. (2023).	1	0	0	1	1	1	0	1	0	0	1	0	1	0	0	1	0	0	0	8	42%	Medium
9	Das, K., Kumawat, D. K., Sharma, A., & Pandey, N. (2023).	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	4	21%	Low
10	Kumawat, B., Sharma, A., Kumawat, D. K., & Das, K. (2023).	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	1	0	0	0	5	26%	Low
11	Rathi, R. B., & Rathi, B. J. (2020).	0	0	0	1	1	1	0	1	0	0	1	0	0	0	0	1	0	0	0	6	32%	Medium
12	Chaudhary, A. and Singh, N., (2011).	1	0	0	1	1	1	0	1	0	0	1	0	0	0	0	1	0	0	0	7	37%	Medium
13	Jayasundar, R., (2010).	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	3	16%	Low
14	Leela, D., (2022).	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	16%	Low
15	Narayanawamy, V., (1981).	1	0	0	1	0	0	1	0	0	1	0	0	0	1	0	0	0	1	0	6	32%	Medium
16	Patwardhan, B. and Vaidya, A.D., (2009).	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	3	16%	Low
17	Varier, M.R., (2020).	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	16%	Low
18	Verma, S., (2023).	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%	Low
19	Wujastyk, D. and Smith, F.M. eds., (2013).	1	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	5	26%	Low
20	Carpenter D. (2019).	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	4	21%	Low
21	Halpern, M. (2016).	1	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	5	26%	Low
22	Ketabi, S. (2017).	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	1	4	21%	Low
23	Lad, V. (1997).	1	1	0	0	0	1	0	1	0	0	0	0	1	0	0	1	0	0	0	6	32%	Medium
24	Ninivaggi, F. (2008).	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%	Low
25	Sharma, H., Chandola, H.M., Singh, G. and Basisht, G. (2007).	1	0	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	5	26%	Low
26	Shilpa, S. and Venkatesha Murthy, C.G. (2011).	1	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	5	26%	Low
27	Talcherkar, A. (2019).	1	0	0	0	0	1	0	1	0	0	1	0	1	1	1	0	0	0	0	7	37%	Medium

Annexure D - List of Questions to Appraise Studies

- Q1: Does the article/conference paper/thesis indicate who the programme is intended for (Inclusion and Exclusion criteria)?
- Q2: Does the article/conference paper/thesis report on the representativeness of the target population?
- Q3: Does the article/conference paper/thesis report on participation rate?
- Q4: Does the article/conference paper/thesis report on the intervention programme achieving the intended objective(s)?
- Q5: Does the article/conference paper/thesis report on the outcomes of the intervention?
- Q6: Does the article/conference paper/thesis report on the limitations/challenges/gaps of the intervention(s)?
- Q7: Does the article/conference paper/thesis report on the reasons why clients terminate/prematurely exit the program?
- Q8: Does the article/conference paper/thesis describe the intervention setting/field of practice/discipline?
- Q9: Does the article/conference paper/thesis report on the adoption of the intervention by the service user?
- Q10: Does the article/conference paper/thesis report on the adoption of the intervention by the service provider?
- Q11: Does the article/conference paper/thesis report on who delivered the intervention program/field/discipline of the practitioner?
- Q12: Does the article/conference paper/thesis report on the level of expertise of the service provider(s)?
- Q13: Does the article/conference paper/thesis report on the duration and frequency /duration of the interventions?
- Q14: Does the article/conference paper/thesis report on the staff (one discipline vs interdisciplinary) involved in delivering the program?
- Q15: Does the article/conference paper/thesis report on the cost implication of the intervention program?
- Q16: Does the article/conference paper/thesis report on intended and delivered interventions?
- Q17: Does the article/conference paper/thesis report on long term effects of the intervention (after six months)
- Q18: Does the article/conference paper/thesis report on the indicators used for intervention follow – up?
- Q19: Does the article/conference paper/thesis report on the cost of maintaining the programme?



Annexure E

11 October 2022

Ms K Pather
Department of Social Work
Faculty of Community and Health Sciences

HSSREC Reference Number: HS22/8/24

Project Title: Ayurveda as a model of intervention in treating substance use disorders in adults: A systematic review

Approval Period: 29 September 2022 – 28 September 2025

I hereby certify that the Humanities and Social Science Research Ethics Committee of the University of the Western Cape approved the methodology, and ethics of the above-mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

Please remember to submit a progress report by 30 November each year for the duration of the project.

For permission to conduct research using student and/or staff data or to distribute research surveys/questionnaires please apply via: <https://sites.google.com/uwc.ac.za/permissionresearch/home>

The permission letter must then be submitted to HSSREC for record keeping purposes.

The Committee must be informed of any serious adverse events and/or termination of the study.

Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape

Brenda Burgess, Editor.

Searching for just the right words – writing what is upright and true.

Brenda Burgess
Durbanville
South Africa
082 7799389
bjburgess7@gmail.com
www.brendaburgess.com

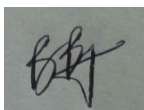
23 November 2024

I confirm that I, Brenda Burgess, am a professional editor with twenty years' experience in the field of editing.

I confirm that from 5 November to 23 November 2024, I edited Karusha Pather's work entitled *Ayurveda as a Model of Intervention in Treating Substance Use Disorders in Adults: A Systematic Review*. This thesis was submitted in partial fulfilment of the requirements for the degree of Master of Social Work in the Department of Social Work, Community and Health Sciences Faculty, University of the Western Cape.

Although this proposal has been edited to improve formatting, grammar and typographical errors, it remains the work of Karusha Pather, and she has approved of the changes.

Kind regards



Brenda Burgess

Editor



Digital Receipt

This receipt acknowledges that Turnitin received your paper. Below you will find the receipt information regarding your submission.

The first page of your submissions is displayed below.

Submission author: Karusha PATHER
Assignment title: S Carelse Student MSW Thesis Upload for Tii
Submission title: 3516856:KPather_Master's_Thesis_Copy.docx
File name: 26-d78a-4cef-a5c2-4ec1f9b3f548_KPather_Master_s_Thesis_C...
File size: 813.63K
Page count: 124
Word count: 37,923
Character count: 222,264
Submission date: 01-Dec-2024 08:25AM (UTC+0200)
Submission ID: 2536426541

CHAPTER ONE OVERVIEW

1.1 Introduction

Substance Use Disorder (SUD) is a worldwide phenomenon. South Africa has a rapidly increasing SUD rate and ranks globally among the top ten countries that have a high prevalence of SUD (South African Community Epidemiology Network on Drug Use [SACENDU], 2023). The most common substances being used and abused in South Africa are alcohol, opioids, cannabis, nicotine, methamphetamine and cocaine, all of which have negatively impacted many individuals, families and communities (SACENDU, 2023).

Despite the demand for SUD treatment in South Africa, access to treatment remains low. Westernised modalities dominate existing literature in terms of SUD treatment and there is a gap in alternative treatment approaches to substance use disorders (SUDs). Additionally, in the new evolution of holistic treatment approaches, there is a gap regarding the use of homeopathy, such as Ayurveda, as an independent modality. The use of Ayurveda as an alternative and holistic approach to SUD has increased the effectiveness of treatment in terms of emotional, physical, social and spiritual wellbeing (Taleherkar, 2018). Also, Ayurvedic treatment focuses holistically on the prevention of disease using natural minerals and rehabilitative coping mechanisms to ensure effectiveness (Modir & Munoz, 2018). However, the lack of alternative holistic approaches in treating SUDs generally, and in social work practice particularly, remains a concern (Taleherkar, 2018). This gap in treatment options for SUDs requires exploration. Thus, the aim of this study was to conduct a systematic review (SR) to identify the intervention methods used in Ayurveda as a model for treating SUDs in adults.

1.2 Background and Rationale

Western modalities have dominated SUD treatment both in-patient and out-patient services (Hidperi, 2016). These modalities include treatment services such as detoxification with the use of Western medicine, psychotherapy, psychiatric, 12-step programmes, group and individual therapy, the use of various therapeutic systems such as Cognitive Behavioural Therapy (CBT), Dialectical Behavioural Therapy (DBT), Rational Emotive Behavioural Therapy (REBT) and aversion therapy (Marsh et al., 2015). However, the use of indigenous modalities has increased in various parts of the world but have either been appropriated or used in conjunction with Western modalities which often diminish the impact of a holistic approach (Marsh et al., 2015). The use of Ayurveda in SUD, for example, enables those in treatment to utilise a more holistic approach towards treatment and wellbeing since it constructs the condition (such as SUD) and highlights the importance

Turnitin Originality Report

Processed on: 01..Dec..2024 08:26 SAST

ID: 2536426541

Word Count 37923

Submitted: 1

3516856:KPather_Master's_Thesis_Copy.docx By
Karusha PATHER

Similarity Index

6%

Similarity by Source

Internet Sources: 4
Publications: 2
Student Papers: 2

1% match (Internet from 05-May-2016)

[b.tto://www.doria.fi/hitstcearo/baodle/1002:1/90S11/lbasisfioalYersioo_SSeuly.odf?se](http://www.doria.fi/hitstcearo/baodle/1002:1/90S11/lbasisfioalYersioo_SSeuly.odf?se)

< 1% match (publications)

Franklin, Cynthia, Jordan, Cathleen. "Turner's Social Work Treatment", Turner's Social Work Treatment, 2024

< 1% match (Internet from 03-Nov-2024)

<http://icp.ei.ntw11-content/uploads/2024/07/Public-EnterP..rise-Volume-281.P..df>

< 1% match (student papers from 05-May-2020)

[Submitted to Royal College of Surgeons in Ireland on 2020-05-05](#)

< 1% match (Internet from 15-Dec-2022)

[b.ttos://cesearchsoare_tdao_ar_zal/bitstrearo/baodle/10113/12692/Cbiorom_Freedom_2011.odf?isAllowed---y.&s..eQueore-1](http://btos://cesearchsoare_tdao_ar_zal/bitstrearo/baodle/10113/12692/Cbiorom_Freedom_2011.odf?isAllowed---y.&s..eQueore-1)

< 1% match (Internet from 16-Jan-2023)

http://researchsp..ace.ukzn.ac.za/bitstream/handle/10413/12051/Ramnarain_Yavisha_2012.P..df.txt?sequence-3

< 1% match (publications)

[Rurbika Malhotra "fmoiriral Besearcb in SoftYare fngioeeriog- Cooreflts..AaaJ.y.sis.. and Annliratioos". Cb.aproao and Hau/CRC..20.1.2.](#)

< 1% match ("Current Perspectives on Substance Use Disorders in South Asia", Springer Science and Business Media LLC, 2024)

["Current Pers12ectives on Substance Use Disorders in South Asia". ringer Science and Business Media LLC, 2024](#)

<https://uwcscholar.uwc.ac.za/home>

< 1% match student Qapers from 29-Nov-2015