THE EFFECTIVENESS OF FAMILY THERAPY IN THE TREATMENT OF ADOLESCENCE SUBSTANCE ABUSE: A SCOPING REVIEW

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A study report submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Master of Science in Nursing

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DECLARATION

I, Beauty Mogotlane declare that this Study Report is my own, unaided work. All sources quoted have been indicated to the best of my ability by the use of complete referencing using the Harvard referencing style.

This Study Report is being submitted for the degree of Masters of Science in Nursing at the University of the Witwatersrand, Johannesburg. This report has not been submitted for any other degree or examination at any other University.

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Signature: Date:

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This study is dedicated to:

My son, Heston, for being my calm in the storm.

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ABSTRACT

Purpose and objective: This scoping review identified and examined existing evidence based literature relating to the effectiveness of family therapy in the treatment of substance abuse disorders in adolescents. To describe what is known from existing literature, about the effectiveness of family therapy as an intervention in the treatment of adolescents using substances.

Method: The scoping review method was used to synthesize study evidence and map the key concepts around adolescent substance use treatment. A total of 10 articles were sourced through electronic databases and through manual reference list searching. In the articles, family based therapy was compared with other interventions (manualized/non-manualized) on their effectiveness in treating adolescent substance use.

Results: the identified themes throughout the articles were, the effects of treatment on substance use; retention of the adolescent in treatment and problems associated with substance use in adolescents. Although family therapies (such as EBFT, MDFT, FFT, BSFT) did not always outperform other interventions, there was significant improvement in the key themes.

Conclusion: Evidence suggest family therapy as a promising treatment in adolescents using substances.

Keywords: Adolescent, Substance use, Family therapy.

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CHAPTER ONE

AN OVERVIEW OF THE STUDY

1.1 Introduction

Many adolescents in South Africa are faced with a myriad of challenges that are possibly linked to socio-economic problems such as poverty, unemployment, HIV/AIDS and gangsterism to name a few. This challenge may lead the adolescent to use substances as a mechanism to cope with their stressful situations.

It is from a psychiatric nursing perspective that this scoping review investigated the effectiveness of family therapy in the treatment of adolescent substance abuse. This chapter provides an orientation to the study. The background to the study, motivation and the significance of the study is stated. This chapter also discusses the study problem, outcomes of the study, and the method the researcher used to achieve the purpose of the study.

1.2 Background to the study

Substance abuse among adolescents is a rising public health and social problem globally and nationally as is evidenced in the literature and by the number of adolescents making use of the health system in seeking treatment for this condition. Out of the 4026 patients who were admitted in Gauteng based specialist substance abuse centres, for substance abuse in the 1st half of 2013, 26% of them accounted for patients between the ages 10-19 years according to the South African Community Network on Drug Use (SACENDU, 2014). Furthermore, in Gauteng province, an increase in the number of adolescents seeking treatment for substance abuse related conditions was seen from 572 in 2010(for the period January to June) to 926 adolescents in 2013 for the 1st half of the year (SACENDU, 2014).

According to Bayever (2009) of the Central Drug Authority (CDA) the age for first drug use attempt has dropped to the age of 12 years in South Africa, where 30% of school going children admitted to using alcohol socially. According Ramlagan, Peltzer & Matseke (2010), while the initiation age for alcohol was 12years, the cannabis initiation age was younger at 11years; cocaine and mandrax were initiated at an average age of 16 years. Moodley, Matjila & Moosa (2012) reports that the age for first time use of Nyaope was 11 years. According to SACENDU (2014) in Gauteng province the youngest age for admission for substance abuse has reached a low of 9 years.

The prevalence of substances misuse and abuse across the country differs from province to province. In the information collected by SACENDU (2014) across the six provinces that are part of the network shows an overall increase the number of people below the age of 20 years using substances. The provinces in the network include The Western Cape, Kwazulu-Natal, Eastern Cape, Gauteng, Mpumalanga and most recently Limpopo. The data is collected biannually across the specialist treatment centres in each province. For the period January to June 2013 Kwazulu-Natal showed an increase from 23% to 53% of patients below the age of 20 years being treated for alcohol use, or reporting alcohol as their primary substance. In Gauteng, cannabis remains the most used substance amongst adolescents with 40% of patients reporting using cannabis as their primary choice of drug. This is followed by alcohol where 27% of patient admissions below the age of 20 years were treated for this substance in Gauteng treatment centres. In Gauteng, the period July to December 2012 saw the first admissions for the new drug "Nyaope" which is a mixture of cannabis and heroin which was at 4% (SACENDU, 2014). The number of admissions for the "Nyaope" drug has since been steadily increasing in Gauteng (SACENDU, 2014).

1.2.1 Risk factors amongst adolescents

A number of individual, environmental and contextual factors are involved in the development of substance abuse. According to The Department of Basic Education (DBE 2013) determinants of substance use include individual risk factors such as impulsive behaviour, low self-esteem and

aggression. Environmental factors include exposure to the use of substances, poor job opportunities and having excess of unstructured time. According to The National Institute on Drug Abuse (NIDA, 2014), the emotional health of an individual is strongly influenced by interactions among family members and poor interactions may contribute to the development of substance abuse disorders.

The National Institute on Drug Abuse (2014) states that having friends that use substances, inherited genetic vulnerability, inappropriate coping skills, presence of psychological disturbance, poverty, lack of information relating to substances, little or no involvement in recreational or social activities and lack of law enforcement are contributing or risk factors for substance abuse.

Individual factors refer to factors that are specific to the individual. These may include the individual's personality, attitudes, mental and physical health. Low self-esteem may lead an adolescent to use substances to overcome the feeling (Department of Basic Education, 2013). Personal attributes such as delinquency, unconventionality and deviant attitudes are important factors predictive of adolescent dru g use. Gender also plays a role in predicting drug use. SACENDU (2014) reports that a larger percenta ge of people being admitted for substance abuse are male. In addition, SACENDU (2014) reports that woman mostly use over-the-counter medications more than male patients.

Family factors include factors that are within the family structure. The parental use of substances in front of the family members may bring about the perception that the behaviour is appropriate or acceptable. The South African Medical Research Council (2013), in their 3rd South African National Youth Risk Behaviour Survey indicated that the percentage of smoking learners who had parents who smoke was higher (37,5%) than amongst learners who had parents that did not smoke.

School factors include relationships with peers. Difficult or bullying relationships with peers may result in drug use. Peer pressure where one feels the need to conform to group activities, which may include drugs, may pose as a risk factor. Another concern is the availability of substances on school property, where 8,5% of learners had reported to have been offered, sold or given substances on school property (South African Medical Research Council, 2013).

Community factors refer to the general attitude of the community towards drug use. The exposure to public drinking and smoking may result in the youth thinking it is a norm. In a community where the people do not talk or act against these behaviours, it may increase prevalence of substance use amongst its youth. The ease of access to substances also poses as a risk factor. Finding businesses which trade in

alcohol and tobacco being accessible to under age youth and within close proximity to schools is another risk factor (Department of Basic Education, 2013).

Environmental factors such as low socioeconomic status, discrimination, unemployment and poor recreational facilities may also add to the risk.

Societal factors: the glamorised advertising of alcohol increase the risk of youth using alcohol with the idea of it being "cool". Increasing the price of legal substances may reduce their use by the youth (Department of Basic Education, 2013).

However, the same factors that pose as risk to substance use may be protective in prevention of this hea lth problem if used appropriately. Protective factors are the factors that may assist in the prevention and treatment of substance use in adolescents. According to the Department of Basic Education (2013) the following are vital factors:

Family factors: the family environment is one of the most important in combating substance use in adolescents. Protective factors include healthy relationships within the family, accompanied by good communication practices and respect for one's individuality but most importantly respect for the entire family as a unit. It is the role of the parents in the family to monitor behaviours and be able to detect any change in the adolescent's behaviour. Therefore, it is important to equip the parents with information of services available should they suspect their child is using substances and to equip them with coping skills.

Individual factors: self-confidence, healthy/high self-esteem as well as good relationships may prevent the adolescent from experimenting with substances.

School factors: the implementation of school policies on drug use is noted as a factor that can create awareness and combat the use of substances amongst school going adolescents, along with a strict code of conduct.

Societal and community factors: increasing the price of legal substances such as alcohol and monitoring the trading practices of places that sell alcohol in the community may help in containing the accessibility of this substance to under age users (DBE 2013).

1.2.2 Consequences of substance use

The abuse of substances interferes with the way the user thinks, feels and acts. It later affects their ability to learn, the ability to sustain friendships, contributes to disciplinary problems and causes conflict within the family while increasing risky behaviour (Department of Basic Education, 2013).

Scholastic problems: Drug use amongst adolescents often leads to negative consequences in school such as absenteeism, low academic performance and school dropout (Department of Basic Education, 2013).

Use of substances has also been associated with mental illness such as depression, behavioural disorders and schizophrenia (Department of Basic Education, 2013). In a study conducted with high school pupils in Cape Town (Pluddemann et al., 2010), evidence showed that the use of methamphetamine was associated with aggressive behaviour and higher mental health risk.

With the increase in the number of drug users using injecting as a method, the risk of HIV and other virus infections is on the increase (Uuskula, Raag, Marsh et al., 2017).

According to the National Institute for Crime Prevention and The Reintegration of Offenders (NICRO, 2015) substance abuse and crime often go hand in hand. This may be reason to the impaired judgement and impulsive behaviour following substance use, or the user may commit a crime to fund his next dose. In the data collected in the period 2012- 2013 by NICRO (2015) where 22.1% of the sample was represented by individuals 18 years and below in age, numbers indicated that a large number of offenders were found to be using substances.

Risky sexual behaviour: the psychopharmacological effects of some drugs increase sexual arousal, while decreasing the inhibitions to resist sex. Substances also affect the ability of the user to make good judgments and may lead to impulsive behaviour such as multiple sexual partners, failing to use protection during intercourse which then increases the risk of unplanned pregnancies and STIs (Department of Basic Education, 2013). Adolescents who use alcohol or substances are more likely to be sexually active at an earlier age than adolescents who don't use.

According to Rosner (2013), there are certain differences of an adolescent from those used to treat an adult. The biological, psychological and social ways in which adolescents differ from adults should be considered. The biological difference is that there is still an ongoing process of development and age related growth in the adolescent brain. Exposure to substances may lead to compromised executive functioning of the brain (Rosner, 2013).

The psychological risk in adolescents is related to the fact that there is still a growth process taking place, much like with the biological aspect. The adolescent is still learning to control impulses, engage in rational decision making and exercise wise judgement. According to Rosner (2013) the use of substances distracts the adolescent from growing psychologically as more time is spent on using the substance.

The same applies socially; the adolescent tends to focus their time on using and acquiring substances which leads to the impairment in interpersonal effectiveness and in establishing a stable supportive social network (Rosner, 2013).

Treatment also depends on the stage of substance abuse of the adolescent or individual. According to Rosner (2013) there are four main stages of substance use:

1. Experimental\ casual use. These individuals may require education on the risk of substances and may benefit from brief counselling.
2. Regular use: the adolescent who is a regular user may benefit from education, counselling, individual or group psychotherapy, to therapy including the family.
3. Abuse: the adolescent abusing substances may respond well to individual outpatient therapies, Cognitive behavioural therapy, or 12 step programs. These adolescent may also benefit from treatment in a residential centre.
4. Dependence: adolescents who are dependent on substances would benefit more from inpatient treatment with aftercare in a halfway house or intensive outpatient therapy.

Various treatment programmes are available for adolescent substance abuse in different health institutions. Treatment may be accessed at state facilities or private sectors depending on the individual's financial standing. Treatment may be on an inpatient or outpatient basis and may include detoxification, Cognitive Behavioural Therapy, motivational interviewing, therapeutic counselling, medication and family therapy. As mentioned, many psychosocial and psycho pharmacological interventions are used to treat adolescents with substance abuse problems. One such an intervention is family therapy.

1.3 Theoretical background of family-based therapy: Family systems theory

Cook, (2007) is of the opinion that substance abuse is perceived as a response to increased anxiety levels within a family. Bowen's Family Systems theory describes how the family functioning links to the individual's behaviour patterns. Family systems theory is formed by eight concepts which are interlocking and these are: differentiation of self, family emotional systems, family projection process, sibling position, triangulation, cut-offs, multigenerational transmission, and societal regression (Bowen, 1978). These concepts are briefly discussed below.

According to Cook (2007) the first concept, differentiation, is the cornerstone of this theory. Differentiation describes the individual's ability to separate feeling and thinking, to think before they act instead of reacting especially in times of anxiety. According to Cook (2007) differentiation is a behaviour pattern learned in the family of origin. Problem solving skills and personal boundaries that are intact are qualities that would be observed in an individual who is well differentiated. The opposite of differentiation, would be fusion which is observed when an individual reacts emotionally to anxiety (Cook, 2007). According to Haefner (2014) a poorly differentiated individual has a poor sense of self, leading to decision making based on the view of others as he/she requires the acceptance and approval of others. Fusion results in incapability of dealing with anxiety which may lead to substance abuse.

Linked to differentiation, is family emotional systems. This concept refers to the emotional environment in which the child is brought up in and learns from. According to Haefner (2014) the manner in which a family reacts to stress is carried down through generations. A child who is born in a poorly differentiated family with be unable to separate his feelings from those of the family. Therefore, a child who grew up in a highly anxious family will find it difficult to learn healthy mechanisms when dealing with stress (Cook, 2007).

Family projection process refers to how anxiety is transferred from parents on to a child or other family members (Cook, 2007).

Sibling position describes how behaviours learned are linked to the child's position in the family, as well as their gender. Cook (2007) describes how an oldest child in a family learns to function well above expectations where the youngest usually under-functions.

Cook (2007) refers to triangulation as the most stable emotional system in families. According to Haefner (2014) triangulation is a healthy behaviour used to diffuse anxiety between two family members, involving another individual.

The sixth concept is cut-off. This refers to the process where an individual separate from the family of origin when fusion causes intense emotions, resulting in the environment being uncomfortable (Cook, 2007). The separation may be physical where the individual decides to move away from their family of origin or emotional, where the individual behaves in such a way that he\she gets 'kicked out' by the family (Cook, 2007).

The concept of multigenerational transmission refers to a process of passing down of differentiation and behaviour patterns across generations (Cook, 2007). According to Haefner (2014), these family traditions may be beneficial or detrimental for the individual.

Societal regression is similar to how the family reacts to stress. Just as in the family context, when a society experiences chronic stress it leads to a lower level of functioning (Haefner, 2014).

Bowen's Family Systems theory emphasizes the importance of assessing and understanding the family system and environment, in order to treat effectively and appropriately (Haefner, 2014). This may be achieved by use of a genogram (see Figure 1.1).

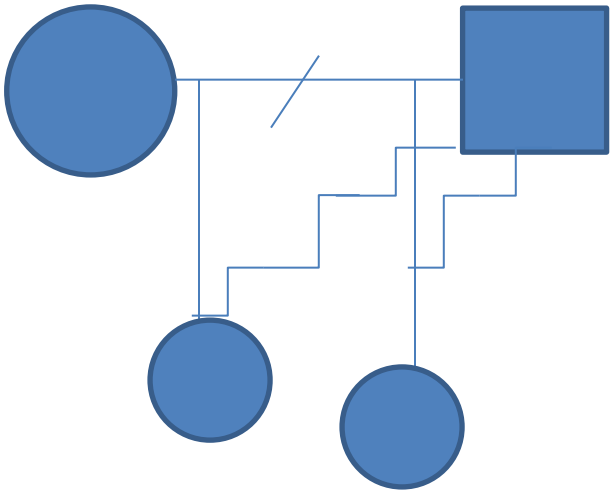

Figure 1.1 Genogram example

Figure 1.1: illustrates a family of two parents who have separated, and have two daughters. The genogram indicates that the two daughters have conflictual relationships with their father.

1.4 Family-based therapy

Anspikian (2013) is of the opinion that family therapy addresses disturbances in the family system. Family therapy is therapy that focuses on the family and not the individual within the family. It involves the family as a whole and is directed towards changing the organization of the family (Minuchin, 1974), viewing the family as a system of relationships all connected to each other and in turn affecting each other (Substance Abuse and Mental Health Services Administration, 2011).

Family therapy in substance abuse focuses on interactions within the family, targeting both risk and protective factors linked to the family system (Horigian, Anderson & Szapocznik; 2016). Protective factors are those that may decrease the use of substances, such as: parent-adolescent communication, family support of the youth, positive parenting, parental monitoring and knowledge (Horigian et al.,2016)

According to Gurman & Kniskem (2013) there are 3 main systems approaches to family therapy. These are structural, strategic, and intergenerational approaches.

> Structural family therapy uses the therapy to look at relationships, behaviours and patterns within the family; it also considers the subsystems within the family, such as sibling or parental subsystems (Gurman & Kniskem, 2013).
>
> Strategic family therapy looks at how the family functions outside of the therapeutic situation. It examines how the family communicates with one another, how the family deals with challenges. Strategic family therapy focuses on the belief that behaviour can be changed without addressing the source of the problem (Gurman & Kniskem, 2013).
>
> Intergenerational family therapy suggests that behavioural patterns are passed from one generation to the next. Therapists use techniques such as re-framing the present problem as a multigenerational pattern, not caused by the individual (Gurman & Kniskem, 2013).

According to Velleman, Templeton & Copello (2005) growing clinical and study literature on family issues related to substance abuse has pointed to the important role of family factors in the onset of these

conditions. Liu, Fang, Yan, Zhou *et al* (2015) further support this view by mentioning how family support systems are critical in maintaining the effect of treatment interventions, by fostering positive parent-adolescent interaction.

Anspikian (2013) concludes that family therapy has great potential to improve engagement and retention in treatment, which may reduce the adolescent's substance use.

Horigian, Anderson & Szapocznik (2016) discuss evidence- based family therapy approaches modified and used in the treatment of substance abuse in adolescents.

Multisystemic family therapy

Multisystemic family therapy is an approach that has its focus on the adolescent's engagement with the family and community. This approach aims to decrease difficulties that the adolescent may have with his family, peer group and schools. The therapist best achieves this by addressing problems within systems (conflict in the family, negative group of friends) and problems between the different systems (parent involvement in school work, peer group school attendance (Horigian et al., 2016). According to Horigian et al. (2016) there are 9 important treatment principles to applying this approach:

1 Finding the fit: this involves the therapist conducting a thorough assessment on the adolescent, with the aim of understanding the multiple contexts in which the adolescent's substance use fits.
2 Focusing on the positive and strengths: from the assessment, the therapist is able to identify the positive attributes within the systems and use them to bring change.
3 Increasing responsibility: the therapy engages individuals in responsible behaviours such as school attendance, stopping substance use and patience from caregivers.
4 Present focused, action orientated and well defined: the therapy focuses on taking action to solve current problems and not issues that are in the past.
5 Targeting sequence: the focus of the therapy is on multiple interactions that work together against substance abuse.
6 Developmentally appropriate: strategies are designed in accordance with the developmental stage of the adolescent.
7 Continuous efforts: the interventions are applied throughout the week, and application is taken on by various family members.

8 Evaluation and accountability: the effectiveness on the intervention is assessed throughout treatment and post treatment.

9 Generalization: although treatment may be targeting current issues, this approach empowers caregivers with skills to tackle future problems.

Functional family therapy

The aim of this approach is to improve communication within the family, increase support amongst family members, decrease negative behaviour and other dysfunctional patterns within the family (Horigian et al 2016). The therapist applies this approach in three phases. The first phase involves the therapist engaging the family and focusing on motivating them to wanting to change. The therapist uses reframing as a technique to change the way negative attitudes or emotions are viewed. In the second phase the therapist assesses the risk factors within the family and assists the family to change negative behaviours. According to Horigian et al. (2016) the therapist achieves this through encouraging good communication skills and assisting the caregivers in implementing rules and consequences for misbehaviours. In the final phase the therapist assists the family in maintaining the positive changes that occurred during treatment and empowering the family to use the skills in any other situation. These include skills of problem-solving and communication.

Multidimensional family therapy

According to Horigian et al. (2016) multidimensional family therapy (MDFT) is a combination of individual therapy and multiple systems approach. The therapy focuses on the intrapersonal and interpersonal factors that might be contributing to substance use and other behavioural problems in adolescents. This approach is guided by core assumptions. One of the assumptions is that adolescent substance use is a phenomenon with more than one dimension, meaning the therapist needs to take into account various social contexts.

Brief strategic family therapy

This evidence- based approach uses the application of multiple interventions. Brief strategic family therapy is a combination of structural family therapy, strategic family therapy and makes use of interventions to address on systemic interactions linked to adolescent substance use as well as related patterns of problematic behaviours (Horigian et al., 2016).

Ecologically based family therapy

Ecologically based family therapy has been used mostly in runaway adolescents who use substances. According to Horigian et al. (2016) the approach works on the assumption that the family is the best place for most children and not outside placement. The therapist meets the adolescent and family members separately as to establish the reasons leading to the runaway. With the information, the therapist is able to assess and plan interventions accordingly. Individual sessions are aimed at bringing individual changes within the adolescent which would empower the adolescent with coping skills for personal and relational problems (Horigian et al., 2016).

1.5 Legal framework: Treatment of substance use in Children/Adolescents

The Prevention of and Treatment for Substance Abuse Act No. 70 of 2008 gives guideline into the framework for treating adolescents abusing substances. According to section 28 of this Act, children/adolescents using substances are to be treated in separate facilities from adults. The facility that offers such treatment to a child using substances must comply with norms and standards, and registration conditions that are outlined in the Act.

The Prevention of and Treatment for Substance Abuse Act No.70 of 2008 gives these guidelines in accordance to the Children's Act 38 of 2005. Section 191 of the Children's Act 38 of 2005 states that a child and youth care centre may offer treatment to children who are addicted to substances.

1.6 Motivation and rationale for this study

According to Velleman, Templeton & Copello (2005) growing clinical and study literature of family issues related to substance abuse has pointed to the important role of family factors in the onset of these conditions. Liu, Fang, Yan, Zhou, Yuan *et al* (2015) further support this view by mentioning how family support systems are critical in maintaining the effect of treatment interventions, by fostering positive parent-adolescent interaction.

The researcher, as a psychiatric nurse practicing in a psychiatric adolescent unit for substance abuse was interested in the effectiveness of family therapy as an intervention in the treatment of adolescent substance abuse. The three-week programme at the psychiatric facility did not include family therapy. Through interaction with family members, the psychiatric nurse observed that many of the parents did

not have a clear understanding of substance abuse, which had a negative impact on their ability to support the adolescent through recovery.

Parental behaviours such as negative communication, giving into the adolescent's demands were some of the observations indicating a need to have therapy with the whole family.

1.7 Significance of the study

The study can potentially add to the body of knowledge of psychiatric nursing, psychiatry, psychology and substance abuse treatment in adolescence. Should family therapy prove to be effective in the scoping review the results can be disseminated so that family therapy can maybe be included in substance abuse programmes as a standard intervention.

1.8 Study problem and study question

Substance abuse amongst adolescents leads to a number on undesirable consequences such as mental illness, scholastic problems and risky behaviours (Department of Basic Education, 2013). With a significant increase in adolescents using substances, it is clear that there is a need for more evidence-based intervention programmes that target young people and a need to continue monitoring recovery (Parry et al., 2004). Anecdotal evidence exist that family therapy is not part of treatment programmes in some private and public substance abuse rehabilitation centres. In addition, the family has a very limited role in the treatment programme of adolescents with a substance abuse or addiction problem in South Africa/Gauteng.

The study question for the study was: What is known in the existing literature about the effectiveness of family therapy in the treatment of substance abuse in adolescents?

1.9 The purpose and objective of the study

This scoping review identified and examined existing evidence based literature relating to the effectiveness of family therapy in the treatment of substance abuse disorders in adolescents.

To describe what is known from existing literature, about the effectiveness of family therapy as an intervention in the treatment of adolescents using substances.

1.10 Study design and method

The study used a scoping review method based on the framework developed by Arsksey and O'Malley (2005). The study design and method is described in detail in chapter two.

Lindstron, Filges & Jorgensen (2015) published a systematic review on the Brief Strategic Family Therapy in treatment for drug abuse in young people. Their review focused on non-opioid drug use. This scoping review will give insight to the effectiveness of family therapy on adolescents using a range of substances, and will look into the different family therapy methods offered in the treatment of adolescent substance abuse.

1.11 Clarification of the main concepts

This section describes the main concepts related to this study.

Family: According to the South African Department of Social Development (2012, p.3) family is "a societal group that is related by blood, adoption, foster care or the ties of marriage, civil union or cohabitation, and goes beyond a particular physical residence". In this study family refers to a social group of related individuals residing in one household.

Family therapy: Family therapy is therapy that focuses on the family and not the individual within the family. It involves the family as a whole and is directed towards changing how the family had organized itself (Minuchin, 1974), viewing the family as a system of relationships all connected to each other and in turn affecting each other (Substance Abuse and Mental Health Services Administration, 2011). In this study family therapy refers to the treatment modality that involves the whole family and not only the adolescent who abuses substances.

Adolescent: according to World Health Organisation (WHO, 2014) adolescent is an individual between the ages of 10 -19 years.

Substance: "chemical, psychoactive substances that is prone to be abused. This includes tobacco, alcohol, over the counter drugs, prescription drugs and substances defined in the Drugs and Drug Trafficking Act, 1992" (Prevention of and Treatment for Substance Abuse Act, No. 70 of 2008; p.12). For the purpose of this study substance means chemical, psychoactive substances that include tobacco, alcohol, over the counter drugs, prescription drugs and other substances.

Substance abuse: is defined as a 'maladaptive pattern of substance use indicated by continued use of the substance even though it has negative impacts on the individuals' ability to carry out their

daily obligations at work, school and home (Uys & Martin, 2014). The individual may run into substance-related legal problems due to the use of the substance even in hazardous situations (Uys & Martin, 2014). In this study substance abuse refers to a continued 'maladaptive pattern of substance use.

Treatment: care given to a patient for illness or injury (English Oxford Living dictionaries, 2017). For the purpose of this study, care refers to the care given for substance abuse. For this study, treatment refers to an intervention administered in the treatment of substance abuse.

Effectiveness: the degree to which something is successful in producing a desired result (English Oxford Living dictionaries, 2017).

Scoping review: a scoping review is a research method designed for synthesis of evidence (Joanna Briggs Institute, 2015). In this study, it refers to the process used to collect, examine and present evidence.

1.12 Outline of the study report

Chapter one: provided an overview of the study.

Chapter two: provides a review of the study design and method.

Chapter three: has as focus the data collection method and inclusion of the studies.

Chapter four: presents and discusses the findings.

Chapter five: focuses on the conclusions, limitations and puts forward the recommendations from the study.

1.12 Summary

This chapter served as an introduction and orientation to the study and provided the background. In addition, the study problem was introduced, stated and the study rationale and significance discussed as well as the study method and design, and descriptions of the key concepts described.

CHAPTER TWO

STUDY DESIGN AND METHOD

2.1 Introduction

This chapter provides an overview of the study design and method used for this study. With this study, the researcher intends to highlight what is known about the effectiveness of family therapy in adolescent substance abuse treatment through means of a scoping review.

Initially the researcher had embarked on conducting an exploratory pilot study with the aim of gaining insight into the perceptions of family members, on the effectiveness of family therapy. The research question had surfaced when the researcher observed that there was a need for family involvement when treating adolescents with substance use disorders. The study focused on the individuals currently receiving treatment at a private psychiatric clinic situated the east of Johannesburg. The clinic has three major units; these include the General Unit for patients with mood disorders and Axis II diagnoses, YAP (young adults programme) unit and the DDU (dual diagnosis unit) which has patients with Axis I or II diagnoses as well as a history of or current use of substances. The admission criteria are:

- The programme is voluntary. The patient will be required to attend all activities scheduled for the daily programme. This also means that the patient is required to adhere to the unit's rules at all times.

- Current use or history of substance abuse.

The 21-day DDU inpatient programme entails daily groups running from Monday to Friday. The group programme runs from 9am to 5pm, with groups running for an hour with 30 minutes break in between sessions. On admission the patients attend an orientation group where the time table is explained and expectations are discussed, as well as unit rules to be adhered to. The inpatients are expected to attend 100% of the groups, and ae expected to account for groups missed. The DDU group manager gives weekly feedback on attendance to the patients and their psychiatrist.

Due to the challenge of treatment days being limited to 21days, the DDU team designed a treatment programme they felt would be more beneficial to the patient. The Dual Diagnosis treatment model is based on the 12 step-work for addiction, which was initially formed by Alcoholics Anonymous (AA).

Although the 12 step-work was initially for alcohol abuse, it's principles have been used in treatment of other addictions. The AA program operates when a recovered alcoholic passes along the story of his or her own problem drinking, describes the sobriety he or she has found in AA, and invites the newcomer to join the informal Fellowship. The inpatient is expected to prepare their life story on how their addiction started and grew in the lives, to present in their final week of admission. The patients do one step per week and complete the following steps in their Alcoholic Anonymous/Narcotics Anonymous sessions which they start attending in the clinic and following discharge.

The programme also focuses on discharge planning to equip the patient with skills to prevent relapse.

The study aimed to augment the 21 day DDU programme with family therapy as an intervention in the treatment of substance abuse in adolescents. The study aimed to gain insight into the family's perception on the effectiveness of family therapy as an intervention. The researcher's objective was to administer a minimum of four (1 Hour) family therapy sessions to four families and to evaluate their opinions on the effectiveness of the programme.

The researcher was able to complete the intervention with two families of adolescents who had been admitted for the DDU programme. Due to the difficulties in retaining and enrolling families in the family therapy, the researcher and her supervisor decided on doing a scoping review with approval from the Vice-dean of Research of the Faculty of Health Sciences.

One challenge was that of enrolling clients and their families for the family therapy program. Due to the nature of the mental health facility, clients were admitted there under the clinical care of an individual Psychiatrist and Psychologist. Without compromising confidentiality, the researcher would get permission from the treating team before approaching the family. Depending on the treating team's clinical opinion, at times permission wouldn't be granted. Even once permission had been granted, getting the buy in from the affected adolescent proved difficult with fears of disclosing of certain issues to family members that may happen during sessions.

Retention in treatment was another challenge faced. Although the researcher scheduled the sessions at the convenience of the family, it did not prevent families from dropping out of the short treatment.

A brief discussion of the outcomes will take place in Chapter 4.

2.2 Methodology

There are different methods to reviewing literature of which a scoping review is one. Through the use of a scoping review, a researcher is able to synthesize study evidence (Arsksey & O'Malley, 2005). According to Arsksey & O'Malley (2005) the aim of a scoping review is to map the key concepts of an area of interest in study; the main sources and types of evidence available. This is also described as a rapid process (Arsksey & O'Malley, 2005). The scoping review may be carried out independently of any other method, especially when the study area has not been comprehensively reviewed before (Arsksey & O'Malley, 2005).

There may be different reasoning from one researcher to the next on why a scoping review is selected as a method in study. Arsksey & O'Malley (2005) mention the four common reasons for this selection:

> One may take on a scoping review as a tool to examine study activity. This is done to give details into the extent, range and nature of existing study on the specific area. This type of review is useful in mapping fields of study, without actually describing the details of the study findings.
>
> Researchers may also decide on a scoping review to determine if taking on a full systematic review would serve valuable. In this case the researcher aims to identify if any literature exists on the topic or if relevant systematic reviews have been conducted already. From this information, the researcher will then decide if doing a full systematic review in necessary.
>
> A scoping review may be taken on to summarize and disseminate findings. This type of scoping review gives a more detailed description of the study findings and range in the specified area of study.
>
> Another reason one would make use of a scoping review, is for the intention of identifying gaps in literature. The researcher would disseminate the study evidence and continue to draw conclusions regarding the state of study activity. With this type of scoping review, the researcher may identify if doing a full systematic review will be relevant in the specific areas of interest.

For this study the researcher took on a scoping review with the aim of summarizing and disseminating findings. The researcher intended to give the reader a detailed description of what is known on the study question from existing literature.

Through the above discussion of what a scoping review is and how it may be carried out, one would interpret it as a method that precedes a systematic review. Which is not always the case. For this reason, it is relevant to discuss the difference between the two review methods. The Joanna Briggs Institute (2015) discuss the differences between a scoping review and systematic review extensively. Table 2.1 is a tabulated description of the differences.

Table 2.1 Differences between scoping and systematic reviews (Joanna Briggs Institute, 2015)

	SCOPING REVIEW	SYSTEMATIC REVIEW
Inclusion criteria	● Broader scope: less restrictive inclusion criteria	● Inclusion criteria is very precise
Data	● May use different types of data from any type of evidence and study methodology	● Restricted to qualitative and quantitative data
Objective	● Asks: what evidence is available on the topic?	● Aims to give answers to a range of questions
Quality	● Included studies do not have to go through a quality assessment.	● Quality assessment performed on methodology of included studies.

A scoping review as a method in this study is beneficial due to its broad scope. As discussed in the previous chapter: substance abuse in adolescence affects the global community. Substance abuse is not limited to the mere use of a substance but the results which are tied to this societal struggle. Making use of a scoping review will not limit the researcher to specific context, meaning evidence will be disseminated from different sources, giving the reader a broader insight into the effectiveness of family therapy in the treatment of adolescent substance abuse.

2.3 Stages of the scoping review

Arsksey & O'Malley (2005) developed a framework for conducting a scoping review. The framework guides the researcher in ensuring reliability of the summary, by insuring that each step is detailed in order to allow replication of the study by others.

Stage 1: identifying the study question. According to Arsksey & O'Malley (2005) this stage is important in starting a scoping review as it guides the researcher on a strategy for searching of evidence. The study question determines aspects such as the population for the study and clarity on definitions.

This study asks what is known on the effectiveness of family therapy in the treatment of adolescent substance abuse. It guides the researcher on searching for evidence that is about "adolescent" substance abuse, and it puts focus on 'family therapy" as the intervention of interest.

Stage 2: identifying relevant studies. Different sources may be used to enable a comprehensive scoping field. One may make use of electronic databases, reference lists, hand searching of key journals, existing networks and organizations.

For this study, the researcher made use of electronic databases as well as reference lists. No grey material was used in this study.

Stage 3: study selection.

To assist with eliminating studies that was not relevant to the study question, inclusion criteria and exclusion criteria to assist with the search. Key words were identified and used to search for the studies on electronic databases.

The inclusion criteria for this scoping review were:

1. Articles published between 2006 and 2017
2. Articles published in English

3. Articles concerning family therapy as intervention with adolescents who are using or abusing substances (articles that meet search terms)
4. Articles concerning adolescents between the ages of 13-18 years.

Stage 4: Charting the data. This stage involved the technique of charting. According to the Joan Biggs Institute (2015) the process of charting enables the researcher to present a summary of the results in a logical and descriptive manner. In this stage, the researcher decides on which information is relevant to the study question. Arsksey & O'Malley (2005) suggest recording information such as: authors, year of publication, study location, intervention type and comparisons when relevant, duration of the intervention, study populations, aims of the study, methodology used, outcome measures and important results. This key information will be presented in a charted table.

The framework (**Table 2.2**) will be used in reviewing the data collected (Arsksey& O'Malley, 2005). The findings will be charted as set out in the table below.

Table 2.2: Framework for recording results found in relevant articles.

Author	Sample size
Publication date	Intervention
Origin	Duration of intervention
Aim	Key findings
Study population	

The table will be accompanied by a descriptive numerical summary and thematic analysis, to give the reader a full and clear description of the papers as well as the results (Levac, Colquhoun & O'Brien, 2010).

Stage 5; Collating, summarising and reporting the results. For this stage the researcher needs to present the relevant data in such a way as to make it simple for the reader to understand and use. The author should report on the relevant data in such a way that it is not bias but consistent in the approach. The author should be honest about the gaps and limitations in the data, in the report (Arsksey & O'Malley, 2005).

2.4 Summary

A brief description was given on the initial study in which family therapy was conducted with two adolescents and their families in treatment for substance use and abuse. The initial study had to be abandoned due to constraints. The initial study consisted of 4 family therapy sessions with the two families and personal interviews with the concerned family members.

The chapter focused on the study design and method for the scoping review. The chapter further gave insight into the value of the selected method as well as indications.

CHAPTER THREE

DATA COLLECTION

3.1 Introduction

This chapter focused on the description on the processes followed in selecting relevant articles to be used in the scoping review. The methods used in the selection process are described.

3.2 Search methods

3.2.1 Electronic searches

Initially the researcher used PubMed, CINAHL and PsychInfo as electronic data bases for the searching of data. Keywords were identified from the study question to assist with the search. These keywords were used with each data base.

Keywords: Substance use; Substance abuse; adolescent and family therapy.

Filters were applied to narrow down the results of the search. The following filters (criteria) applied on the data bases used:

- Articles published in the past 10 years (2006/01/01-2017/06/31)
- Language: English
- Age of target group: 13-18years (13-17 years for PsychInfo)
- Family therapy
- Substance use and abuse

The initial electronic search was conducted on PubMed followed by the two other databases. Electronic searches on PsychInfo and CINAHL data bases generated numerous duplicates in the case of relevant data and no new data was collected from these data bases. See **Figure 3.1** for search outcome.

3.2.2 Searching of other sources

The researcher conducted reference list checks on the retrieved articles. This process generated 1 new article to be used for the scoping review.

3.3 Selection of studies

As discussed above, the researcher applied filters when searching on electronic databases. This was done to eliminate a large number of articles that may have not been relevant to the search. Looking specifically at PubMed: the search generated 290 results when using the keywords. After the filters were applied, only 165 articles remained.

The researcher read through the abstracts which assisted in deciding which articles would possibly be relevant to the scoping review. If the abstract was not clear, the researcher would go on to read the full text to guide decision. Once the researcher had a list of possible data to use, full texts were printed for thorough reading. From the initial search generating 165 articles, 9 were selected for inclusion in the scoping review. With the addition of the article sourced from the reference list, 10 articles were included. The articles were also reviewed by the supervisor to determine eligibility for inclusion in the study.

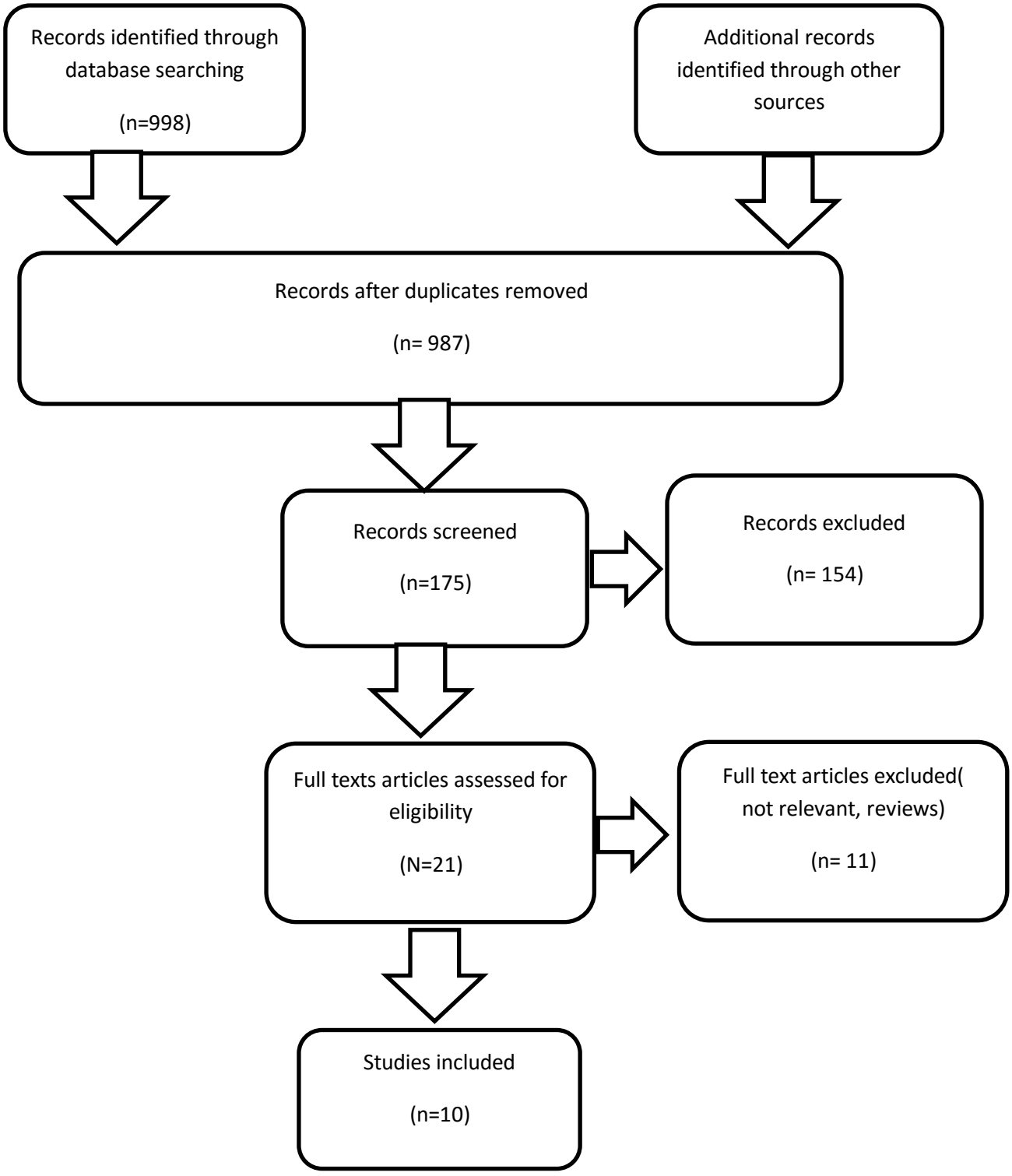

Figure 3.1: Summarised Flow Diagram for the scoping review article selection process

3.4 Data Matrix

Table 3.2 Summary of papers included in scoping review

Authors and publication date	Origin	Aim	Study Population and Sample size	Intervention Type Comparator & Duration	Measures	Key findings
1) Across-sectional assessment of the long term effects of brief strategic family for adolescent substance abuse (Horigian, Feaster, Robbins et al. 2015)	USA (Miami)	Examine long term outcomes of BSFT compared to TAU in rates of drug use, number of arrests & externalising behaviour	Age: 12-17 years Sample: 261 -140 (BSFT) -121(TAU)	Brief strategic family therapy vs TAU -TAU: individual & / Group therapy, Parent training groups, Case management (12-16 planned sessions) -BSFT: 12-16 sessions over 8months	-Timeline follow back interview -Sure step 10 urine drug screen -Adult self report: externalizing scale -Questions on criminal activity -Family functioning measure (parent account)	-Substance use: no significant difference in drug use when comparing the two interventions -Externalizing behaviours: BSFT reported significantly lower levels of these behaviours compared to TAU -Arrests: BSFT reported significantly lower arrests than TAU.
2) Comparison of family therapy outcomes with alcohol abusing, Runaway adolescents (Slesnick & Prestopnik, 2009)	USA Albuquerque, New Mexico	-Outcomes of EBFT & SAU Service as usual	From two runaway shelters -Alcohol problem (Primary) -Age: 12-17 years -Willing family Sample: 119 -EBFT (N=37) -FFT (N=40) -SAU (N=42)	Ecologically based family therapy (Home based) vs Office based (Functional family therapy) vs service as usual -Service as usual: informal meetings / therapy by shelter staff mostly case management & individual therapy / meetings -(EBFT, FFT) -16 (50 minutes' sessions) -FFT: no sessions held at home	-Computerized diagnostic interview schedule for children -Form 90 -Urine toxicology screen -Youth self report of the child behaviour checklist -The national youth survey delinquency scale -Family environment scale -The conflict tactile scale	-Percentage days of alcohol and drug use -Alcohol use: 97% decline for EBFT; 83% decline for FFT; 59% decline for SAU. -Drug use: 72% reduction for EBFT and FFT; no improvement for SAU -Family and Psychological improvements for all three treatments.

3) A randomized clinical trail of family therapy in Juvenile drug court (Dakof, Henderson, Rowe et al. 2015)	-State of Florida	-Aims to build on findings suggesting that family therapy is among the most promising interventions for adolescents externalizing problems Whether matters in JDC as treatment.	-Juvenile court -Age: 13-18 years -Substance abuse / dependence -Sample: 112 MDFT: (N=55) AGT: (N=57) (Adolescent group therapy)	-Adolescent group therapy (CBT & Motivational interviewing) 35 minute sessions per week -MDFT: 2 sessions per week (50% clinic + 50% home) NB: Both intervention lasted 4-6 months	-Diagnostic interview schedule for children -National youth survey self report delinquency scale -Juvenile system database -The personal experience inventory -Timeline follow back method	-@6months, both groups showed significant decrease in substance use and offending behaviour -@24 months, both groups maintained improvement in delinquent behaviours. Youth from both treatments reported increase in drug use (8% MDFT and 19% increase for CBT), but still lower than baseline levels.
4) Multidimensional family therapy lowers the rate of cannabis dependence in adolescents: A randomised controlled trial in Western European outpatient settings (Rigter, Henderson, Pelc et al. 2013)	-Belgium -France -Germany -Netherlands -Switzerland	-To evaluate MDFT with Western European adolescent. -Evaluate issue of transferability of MDFT.	-Age: 13-18 years -Cannabis use disorder Sample: 450 -MDFT (212) -IP (238)	-Multidimensional family therapy vs Individual psychotherapy *Both lasted longer as 6 months -MDFT (2 weekly @office, home, any location) -IP (fewer sessions per week)	-Adolescent diagnostic interview -Timeline follow back method	-Diagnosis of cannabis use disorders: @ 12 months 18% MDFT youth no longer had diagnosis; 15% for IP -Frequency of use: 43% decrease for MDFT; 31% for IP -For high severity cases MDFT reduced frequency of cannabis use tan the IP group; no significant differences for the lower severity group
5) Multidimensional family therapy for young adolescent substance abuse: Twelve-Month outcomes of a randomized controlled trail (Liddle, Rowe, Dakaf, Henderson, Greenbaum.2009)	-Miami	-To evaluate effectiveness of MDFT vs peer group therapy	-Age: 11-15 years -Substance abuse problem Sample: 83 -MDFT (40) -Group (43)	Multidimensional family therapy vs peer group therapy *Both lasted for 12-16 weeks (conducted twice weekly, 90minutes per session) -MDFT (mostly at home) -Group therapy (clinical office)	-Global appraisal of individual needs -Timeline follow back method -Problem orientated screening instrument for teenagers -National youth self report survey -Juvenile record -School records	-Substance use problems: decline in both treatments, more rapid decline for MDFT -Frequency of substance use: A greater decline for MDFT than GT. -Delinquency: Decline for MDFT, increased for GT -Internalized distress: decreased in both groups, more rapidly in the MDFT group -Family functioning: Increase in positive family interactions for MDFT as

						well as a decrease in negative interactions -Schooling: academic performance for MDFT increased, while it decreased for GT
6)Treating adolescent drug abuse: A randomised trail comparing multidimensional family therapy and cognitive behaviour therapy (Liddle, Dakaf, Turner, Henderson, Greenbaum.2008)	-North eastern United states	-Compare experimentally the efficacy of two manual-guided therapies.	-Age: 12-17.5 years - Substance abuse problem Sample: 112 -MDFT (112) -CBT (112)	-Multidimensional family therapy vs Cognitive behavioural therapy *Both had weekly office-based session (60-90minutes session)	-Personal experience inventory -Timeline follow back method (30 days)	-MDFT reported significantly less substance use problem severity than the CBT youth -@12 months youth reporting zero or one occasion use: 64% for MDFT and 44% for CBT youth.
7) Intervention with substance abusing runaway adolescents and their families: Results of a randomised clinical trail (Slesnick, Erdem, Bartle-Haring, Brigham. 2013)	-Ohio (Columbus)	-To evaluate three theoretically distinct interventions in addressing of substance abuse and related problem behaviours among shelter-recruited runaway adolescents.	- Age: 12-17 years - Alcohol or drug abuse / dependence Sample: 179 -Community reinforcement approach (57) -Motivational Interviewing (61) -Ecologically-based family therapy (61)	Community reinforcement approach vs Motivational interviewing vs Ecologically-based family therapy -All session given @ home -All sessions to be compare within 6 months *MI (4 sessions) *CRA (14 sessions) *EBFT (14 sessions)	-Computerized diagnostic interview schedule for children -Form 90 substance use interview -Urine screening	-Substance use: all treatment conditions showed a decline. MI showed rapid decline in substance use, but relapsed quicker. EBFT had a slower decline, but maintained reductions.

8) Randomised trail of family therapy vs Non-family treatment for adolescent behaviour problems in usual care (Hogue, Dauber, Henderson et al. 2015)	-New York	-Test whether family therapy was more effective than non family treatment in adolescents with behaviour problems. -population included a mental health track and substance use track	-Age: 12-18 years - Substance abuse problem Sample: 205 overall sample (only 193 analysed) -fitted alcohol or substance use disorder (72) -FT (95) -Other (98)	Family therapy (Structured-strategic family therapy vs usual care *OPD psychiatric *Drug counselling centres *Community mental health clinics)	-Child behaviour checklist -Youth self report -National youth survey self report delinquency scale -Timeline follow back method	Results for substance use track (SU) -Externalizing and Internalizing symptoms: greater decline in FT. -Delinquency: FT group showed greater decrease compared to Usual care (UC). -Substance use: FT produced greater decline than UC
9) Treatment of adolescents with a cannabis use disorder: Main findings of a randomized controlled trail comparing multidimensional family therapy and cognitive behavioural therapy in the Netherlands (Hendriks, Van Schee, Blanken 2011)	-Netherlands	-To evaluate and compare the effectiveness of MDFT & CBT in the Netherlands in adolescents with cannabis use disorder	-Age: 13-18 years - Cannabis use Sample: 109 -MDFT (55) -CBT (54)	Multidimensional family therapy vs Cognitive behavioural therapy *Both to last 5-6 months -CBT weekly 1-hour session with adolescent & monthly session with caretakers for psycho-education and support -MDFT 2 weekly sessions, 2-hours weekly	-Adolescent diagnostic interview -Diagnostic interview schedule for children -Family environment scale (conflict and cohesion subscales) -Personal experiences inventory subscale Personal involvement with chemicals -Self report delinquency scale -Timeline follow back method -Urine sample	-Cannabis use: @12 months, cannabis use days had decreased by 20.1 days in MDFT and 14.9 days in CBT. 18% had abstained from cannabis in MDFT and 14.8% for CBT. -Delinquent behaviour: significant decrease over time for both groups, no difference in change between the groups. -MDFT not superior to CBT -Higher severity group: MDFT had a greater decline in the number of cannabis using days than the CBT group.

10) Multidimensional family therapy decreases the rate of externalizing behavioural disorder symptoms in cannabis abusing adolescents: outcome of the incant trail (Schaub, Henderson, Pelc, Tossmann, Phan, Hendricks, Rowe, Rigter 2014)	-Western Europe	-Secondary outcomes of incant (see no.4) -To examine if MDFT had positive effects in adolescents on comorbid mental and behavioural symptoms and on the family functioning	-see no.4	-see no.4	-Timeline follow back method -Urine sample -Youth self report -Child behaviour checklist -Family environment scale	-Externalizing and internalising symptoms: MDFT and IP both reduced youth reported symptoms, and increased family functioning. MDFT outperformed CBT on externalizing, but not on internalizing symptoms.

MDFT: Multidimensional family therapy

CBT: Cognitive behavioral therapy

IP: Individual psychotherapy

FT: Family therapy

UC: Usual care

MI: Motivational interviewing

EBFT: Ecological based family therapy

CRA: Community reinforcement approach

GT: Group therapy

BSFT: Brief strategic family therapy

TAU: Treatment as usual (individual & / Group therapy).

AGT: Adolescent group therapy

3.5 Summary

In this chapter, the researcher detailed the process taken in the selection of studies that were included for this scoping review. The chapter gave insight into criteria used to include and exclude data, as well as the sources used for the search. A table with a summary of the articles used was also provided.

CHAPTER 4

ANALYSIS, PRESENTATION AND DISCUSSION OF RESULTS/DATA

4.1 Introduction

According to Henderson, Greenbaum, Dukof & Liddle (2010) a significant amount of work has been put towards the speciality of adolescent substance abuse treatment, evident in the number of promising treatments available.

This study reviewed the literature on the effectiveness of one particular evidence-based treatment, family therapy. In this chapter, the researcher reviews and presents existing outcomes on family based therapy for the treatment of substance use problems in adolescents.

4.2 DISTRIBUTION OF THE STUDIES

This scoping review included 10 studies which took on the method of randomized control trials. The studies evaluated the outcomes of family based therapy in the treatment of substance abuse in adolescents conducted in an outpatient setting community centres within the geographic areas of the participants. One study administered the treatment in the homes of the participants. Throughout this report, the researcher will refer to the studies/authors according to their number order as is depicted in Table 3.2**. S**tudy 4 and study 10 of this review are in fact from the same study. Authors of study 10 (Schaub, Henderson, Pelc, Tossman, et al., 2014) give a secondary analysis on the study conducted in study 4(Rigter, Henderson, Pelc et al. 2013) focusing on the effects of the intervention on externalizing behaviours. The researcher was unable to find any South African literature on the subject matter. Studies presented in this review are from a North American (n=7) and European (n=3) perspective.

4.2.1 Geographic distribution of the articles

Seven of the selected studies were conducted in the United States of America. The remainder of the studies were conducted in Europe, with one study from the Netherlands and two studies conducted across multiple sites in Europe (Netherlands, Belgium, France, Netherlands and Switzerland).

4.2.2 Distribution of articles by Journal

As depicted in table 4.1 most journals had one publication except the Drug and Alcohol Dependence and the Journal of Consulting and Clinical Psychology which each had two publications.

Table 4.1: Distribution of articles by Journal

JOURNAL NAME	ARTICLE (as numbered in Table 3.2)	Number
The American Journal of Addictions	1	1
Journal of Marital and Family Therapy	2	1
Journal of Family Psychology	3	1
Drug and Alcohol Dependence Journal	4 9	2
Journal of Consulting and Clinical Psychology	5 7	2
Addiction Journal	6	1
Journal of Clinical Child and Adolescent psychology	8	1
BMC (BioMedCentral) Psychiatry	10	1

4.2.3 Distribution of articles by year of publication

Figure 4.1 illustrates the distribution of the years the studies were published.

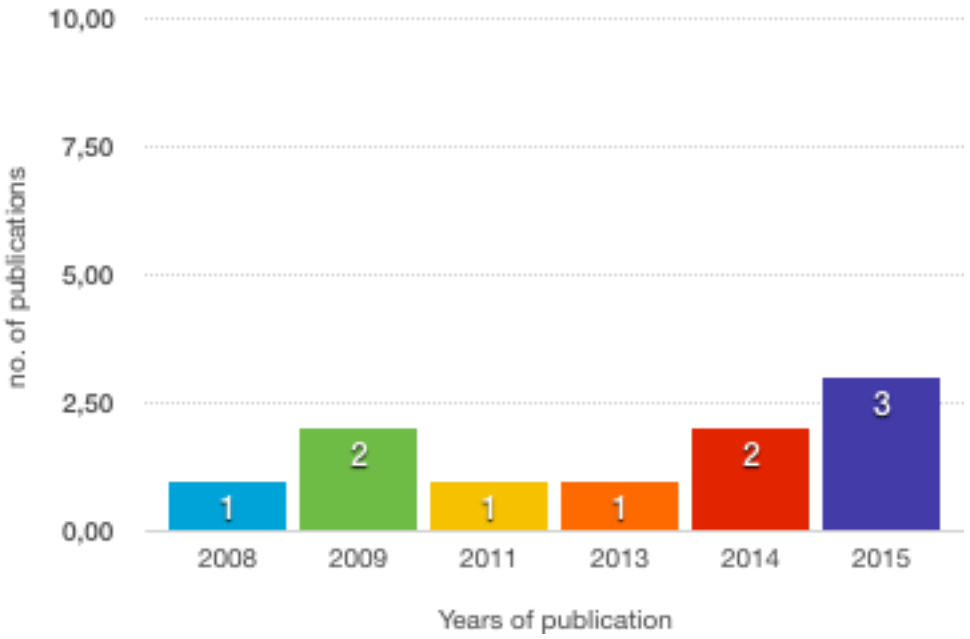

Figure 4.1: Number of studies published per year

4.3 Participants

Participants in all of the studies were between the ages of 11 and 18 years. The total number of participants across the studies was 1612 adolescents. Referrals of participants came from various systems within the geographic areas such as schools, mental health and substance abuse treatment centres, child welfare, parents and juvenile justice system. Study 3 (Dakof, Henderson, Rowe et al., 2015) conducted their study with participants that had been referred by the Juvenile drug court. Study 2 (Slesnick & Prestopnik, 2009) and study 7 (Slesnick, Erdem, Bartle-Haring & Brigham, 2013) accessed their study population from runaway shelters. The study populations in all the studies consisted of both male and female, with male participants making up the majority of the groups. This was true for all studies except for the "runaway" groups in study 2 and 7, where the participants were mainly female.

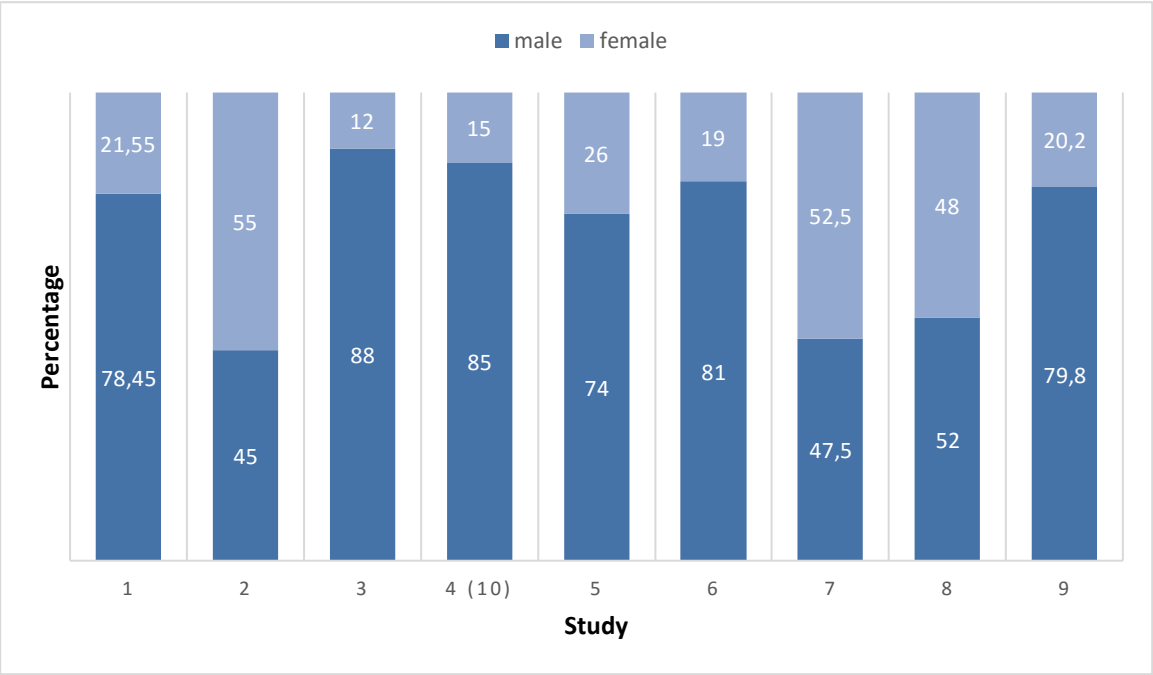

Figure 4.2 Gender distribution of participants

4.4 Inclusion and exclusion criteria

Inclusion and exclusion criteria used appeared similar across all 10 of the studies. The more obvious inclusion was that all the participants had to have at least one caregiver willing to part take in the family based therapy. This included the population from the "runaway shelters" samples, who had to be willing to reunite with their families. Another common criterion across the studies was that the participants should not be in need of detoxification or inpatient treatment for substance use or misuse, nor should they be actively suicidal, psychotic or have any cognitive impairment. A large number (72%) of the referrals in study 1 (Horigion, Feaster, Robbins et al.,2015) were from the Juvenile Justice System, and so they added that the participant could not have a serious criminal offense pending. With Dakof et al. (Study 3) who's population had been referred from the Juvenile Drug Court, added that the participant could not be awaiting trial or being charged with any violence, sale of drugs or weapons. All participants had to have been referred for a substance use disorder.

4.5 Assessment instruments used in the studies

Assessments were done at baseline, across all the studies. Follow up assessments differed in the studies, with the authors of article 1 focusing in the long term effects which they assessed at 3 to 7

years post randomization. Studies 8 (Hogue, Dauber, Henderson et al., 2015) and 9 (Hendriks, Van Der Schee & Blanken, 2011) scheduled follow up assessments at 3; 6; 12months post baseline. Liddle, Rowe, Dakof et al. (2009) in study 5 assessed their participants 6 weeks into the intervention; at discharge or completion of the therapy; at 6 then 12months following the commencement of the study. To add meaning and clarity to the assessments as mentioned in Table 3.2, the researcher gave a brief description of the relevant measurement tools that were used to obtain vital information used from the participants.

FORM 90 (Miller, 1996) is a tool used to give a day-to-day calendar account of the use of alcohol and illicit drug use in the 90 days preceding the semi-structured interview. FORM 90 has been used in clinical trials to assess alcohol and drug use change; as it comprises of an intake version for baseline as well as a follow up version for monitoring.

Timeline follow-back method gives a measure of recent cigarette, cannabis and other drugs (Sobell, Sobell, Buchan, Cleland, Fedoroff & Leo, 1996). The tool enables the interviewee to give retrospection into their estimated use of the substances in the past 7days to 2 years. For cigarettes and cannabis, the individual is asked for an estimate of how many cigarettes/joints had been smoked per day. This information however, is not meaningful for other substances (Sobell et al., 1996). The tool may be self-administered, administered by an interviewer or administered by computer.

The Personal Experience Inventory (PEI) is a self-report measure assessing an individual's chemical involvement (Winters and Henly, 1989). The PEI documents information such as the onset, nature, degree and length of time that the individual has been involved in chemicals. The tool may also be used to prevent further dependence of substances as it assists therapists with identifying personal risk factors that may precipitate or sustain the use of substances. This tool may be self-administered by pen-and-study or by computer.

Diagnostic Interview Schedule for Children (DISC) is a fully structured instrument used for diagnostic purposes in children and adolescents (Shaffer, 1992). The instrument assesses 34 common psychiatric diagnoses in children and adolescents using diagnostic criteria of the DSM-V and ICD 10. According to Fisher, Lucas, Sarsfield and Shaffer (2006) the instrument assesses for the following disorders: Anxiety disorders, mood disorders, disruptive disorders, alcohol/substance use disorders, miscellaneous

disorders such as Anorexia and Bulimia Nervosa. The assessment period may be from the past four weeks, the past year and may optionally be used to assess the whole lifetime of the individual.

The Global Appraisal of Individual Needs (GAIN) is a tool compromising of a series of measures designed to integrate study and clinical assessment (Dennis, 1999). The measures include a screener, a biopsychosocial intake assessment that has been standardized, and a follow up assessment. The interview tool entails eight areas which are included in the 99 scales and subscales of the tool: background and treatment; the recency, breadth and frequency of substance use; risk/protective behaviour; mental health; physical health; legal standing; environment and vocational situation. The tool may be self-administered by pencil-and-study or computer, may be administered by an interviewer verbally or by computer assisted interview.

The POSIT (Problem orientated screening instrument for teenagers) is a 139- item self-administered questionnaire used to screen teenagers for potential problem areas (National Institute on Drug Abuse, 1991). The questionnaire has a series of "yes/no" questions on areas such as: substance use and abuse, physical and mental health, relations with peers and family, status of education, vocational and social skills, leisure and recreation, as well as aggressive behaviour and delinquency.

Family Environment Scale (Moos & Moos, 1986) is a tool that is used to assess the perception of the family by its members and functionality of the family. The tool has subscales measuring dimensions of the family environment such as family relationships, personal growth, systems of maintenance and change.

The YSR (Youth Self Report) is a measure used to assess problem behaviour along two scales: externalizing and internalizing symptoms (Achenbach & Edelbrock, 1982). It is self-report measure with 120 items focusing on delinquency, attention problems, somatic complaints, thought problems, and social problems.

The CBCL (Child behaviour checklist) is the parent version of the YSR. The tool assesses using DSM orientated scales on depressive problems, anxiety problems, somatic problems, attention deficit and hyperactivity problems, oppositional defiant problems, and conduct problems (Achenbach, 1991).

Adolescent diagnostic interview (ADI) is a 213-item structured interview used to assess adolescents for psychoactive substance use disorder (Winters and Henly, 1993). The interview tool is arranged

systematically to evaluate for specific problems that are common to substance abuse. The problems include psychosocial stressors, personal and school functioning, and cognitive impairment based on DSM-III-R criteria (Winters and Henly, 1993).

The National Youth Survey Delinquency scale (NYSDS) is a structured interview that uses scoring as a method to give self-report on the total involvement in general theft, crimes against persons, drug sales and other delinquent behaviours (Elliot, Huizinga & Ageton, 1985).

4.6 Interventions

As mentioned in the introduction of this report, there are numerous evidence based interventions available for the treatment of substance abuse in adolescents. All the articles included in this scoping review were interested in the effectiveness of family based therapy as a treatment intervention with adolescents using/abusing substances. In five of the articles (3; 5; 6;7& 9) the studies compared family based therapy with an alternative theoretical treatment. In studies 3 and 5 Multidimensional family therapy was compared to Adolescent Group Treatment (AGT) on their effectiveness on substance use reduction, delinquency and other problem behaviours related to the use of substances. Dakof et al. (2015) describe AGT as a manualized intervention based on cognitive-behavioral therapy and motivation interviewing. Family involvement in AGT was limited to assessment and treatment planning sessions, and regular updates on the progress of the adolescent. The researchers in studies 6 and 9 made their comparison of effectiveness between Multidimensional family therapy and individual cognitive behavioural therapy (CBT). According to Liddle et al. (2008) CBT is a promising approach in the treatment of substance abuse adolescents, with its theory based on substance abuse being a socially learned behavior. Family contact in this intervention was in the first phase of treatment for the intention of getting the parent's perspective on the problems, as well as for support.

The study (7) compared three theoretical interventions that have been recommended as promising in the treatment of shelter-recruited runaway adolescents (Slesnick, Erdem, Bartle-Haring & Brigham 2013). The interventions compared included Ecologically Based Family Therapy, Community reinforcement approach (CRA) and Motivational interviewing (MI) all targeted at addressing substance abuse and related problem behaviours. Both CRA and MI are individual therapy interventions. According to Meyers (2014) CRA is a behavioural program used in the treatment of substance abuse problems. CRA works on the assumption that one's environment plays a big role in the encouraging or

discouraging of the use of substances and alcohol (Meyers, 2014). MI is a treatment approach aimed at giving the client the "power" to change through motivation (Miller & Rose, 2010).

In studies 1; 2;4 & 8 the authors had compared family based therapy to usual care at community centres. These community centres did not offer family therapy as part of their treatment. In study 1, the authors had compared the effectiveness of Brief strategic family therapy with treatment as usual which included a selection of individual/group therapy, parent training groups, case management and non-manualized family therapy (Horigian et al., 2015). In the INCANT (International cannabis need for treatment) study which was done across five different study sites, the effects of MDFT were compared to those of non-standardized individual therapy (study 4 and 10). According to Rigter et al. (2013) individual psychotherapy varied from CBT to other approaches, which included motivational interviewing and was part of the usual care at the sites. Study 2 took a different angle as the comparison was made between office based and home based family therapy, as well as usual care. Usual care in this study referred to meeting of an informal nature, most often included case management and individual therapy by shelter staff (Slesnick & Prestopnik, 2009). Slesnick & Prestopnik (2009) suggest that working with the family in their natural environment allows the therapist to make a holistic assessment of the ecological influences impacting the family; as well as making the process more natural for the family.

4.7 Analysis of themes

Three themes were identified from the results of the scoping review on the effectiveness of family therapy on adolescent substance abuse treatment:

4.7.1 Treatment retention

Gogel, Cavaleri, Gardin & Wisdom (2013) define retention to treatment as the completion of the full course of treatment that has been prescribed.

From the studies included for this scoping review, seven of them compared and discussed the rates of treatment retention across the different treatment conditions (2; 3; 4; 5; 6; 7 & 9). The authors in these studies had mostly hypothesized that the family based therapy would out-perform other treatment intervention in retaining participants in the treatment programme. In study 2 where Slesnick and Prestopnik (2009) compared outcomes between two family based treatments and runaway shelter

service as usual interventions, it was concluded that the family based treatments were able to retain participants more effectively. The authors included a comparison of the home based family intervention (EBFT) and the office based family intervention (FFT). With regards to retention in treatment, the home based family intervention did outperform the office based family intervention as the authors had hypothesized. According to Slesnick and Prestopnik (2009) this outcome may be linked to two pre-treatment measures such as the context of where the therapy takes place, as well as the extent of externalizing behaviours in the adolescent. In EBFT (Ecologically based family therapy), participants with higher externalizing behaviours were more engaged in treatment than those who had lower scores of externalizing behaviours. Difficult families are easier to engage and retain when the therapy is given in their natural context, which is the home (Slesnick & Prestopnik, 2009).

In the treatment of cannabis dependence in adolescents (Rigter et al., 2013) discussed in study 4, MDFT (90%) outperformed Individual psychotherapy (48%) when it came to the overall completion of treatment. This outcome was assessed by the therapists across the multiple sites of the study (Belgium, France, Germany, The Netherlands, and Switzerland). The hypothesis that MDFT would outperform IP in completion rates was correct across most of the sites, except in Germany and Switzerland where IP had higher retention rates than the family based intervention. When looking at 3 months into treatment, as a benchmark for retention, MDFT (95%) exceeded IP looking at the sites collectively (Rigter et al., 2013).

Another study that favoured family based intervention was study 5 (Liddle et al., 2009) where MDFT managed to retain 97% of their families in treatment. This was compared to group therapy where 72% of the participants completed their treatment. In this study (study 5) both interventions proved promising with regards to retention in treatment (72-97%), although MDFT showed ability in retaining almost all of its participants (Liddle et al., 2009). The hypothesis on family based therapies being able to retain participants was also proven in study 9, where MDFT retained more participants when compared to CBT. According to Hendriks, Van Der Schee & Blanken (2011) this could have been due to the fact that MDFT had more frequent and longer sessions than the CBT programme. Participants in MDFT attended three to four times more than those in CBT which was a shorter and less intense intervention (Hendriks, Van Der Schee & Blanken, 2011).

Dakof et al. (2015) suggest that Juvenile drug court is in itself a promising treatment method in adolescent substance abuse and therefor, hypothesized that there would be no difference in outcomes

across treatment conditions. Correctly so, the study (study 3) found minimal differences in retention between MDFT and AGT. For the purpose of the study (3), the authors defined completion of treatment as treatment attendance of 8 or more sessions. Both treatments managed to retain high numbers of participants who completed treatment (MDFT 96% and AGT 85%). Studies 6 and 7 (Liddle et al., 2008; Slesnick et al.,2014) reported that there had been no statistically significant differences in treatment retention across the different treatment conditions.

Although family based interventions did not outperform the non-family based treatment interventions in all the studies, family based treatment still managed to retain high numbers of participants.

4.7.2 Problematic behaviours associated with the use of substances

Seven of the studies selected for this scoping review explored the effects of family based therapy on problematic behaviours that may be related to substance abuse (Horigian et al., 2015; Slesnick & Prestopnik, 2009; Dakof et al., 2015; Liddle et al., 2009; Hogue et al., 2015; Hendriks, Van Der Schee & Blanken, 2011; Schaub et al., 2014). The baseline assessments in these studies displayed significant scores on the delinquency and behaviour scales, which supports the Department of Basic Education (2013) in their opinion of how substance abuse is linked to these behaviours.

In study 1, Horigian et al. (2015) found that the family based treatment succeeded in decreasing externalizing behaviours more effectively than the treatment as usual programme (TAU) in the study. At follow up, evidence pointed at BSFT as a promising treatment in the decreasing of lifetime/last year arrests and incarcerations in youth with substance use problems. Dakof et al. (2015) found that during their first follow up at 6 months, youth showed a decrease in delinquency; externalizing symptoms; and arrests in both the family based treatment and the adolescent group therapy. The youth in this study (study 3) maintained this improvement in self-reported delinquent behaviours right through to 24 months follow up. MDFT was superior to AGT in reducing delinquent behaviour and externalizing behaviours (Dakof et al., 2015). The authors, however, report that at the 24 month follow up period there had been an increase in arrests for both treatment conditions even though these were still an improvement from baseline. MDFT youth felony arrests increased by 22%, while the youth in AGT increased felony arrests by 32% from from the 6 month follow up to 24 months. The result was similar for self-reported crimes, where MDFT had a decrease of 50%, while AGT decreased by 36% being outperformed by the family based treatment. These results were consistent with those reported by

Liddle et al. (2009) who found that MDFT was more effective in decreases delinquent behaviours in substance using youth. In study 5 (Liddle et al., 2009) the self-reported results were reported with, along with official legal records from the Miami court system to give the reader an accurate picture. The results demonstrated that MDFT decreased delinquent behaviours in youth, more rapidly than the peer group treatment. In fact, the peer group youth increased their delinquent behaviours over the 12month period. The results from the self-reports were consistent with the court records showing that 23% (MDFT) of the youth had been arrested during the time preceding the follow up (44% for AGT); 10% of the MDFT youth had been put on probation vs 30% of the peer group youth. Another study which favoured family based treatment in substance using youth, was that of Hogue et al. (2015). In this study (study 8) the family based treatment outperformed the non-family treatment in reducing delinquent behaviours in this population.

Although the family based treatments were effective in all the studies, these treatments did not always outperform the non-family treatments. Slesnick and Prestopnik (2009) had hypothesized that the two family based treatments would outperform the runaway shelter's service as usual regarding problem behaviours. This hypothesis was partially met, as the family based treatment were successful in improving externalizing problems and delinquent behaviours (Slesnick & Prestopnik, 2009). The service as usual participants had also shown improvements. In study 9 Hendriks, Van Der Schee & Blanken (2011) found that MDFT and CBT both showed decreases in delinquent behaviours with no overall difference between conditions. Delinquent behaviour in study 9 was measured by the number of property and/or violent crimes. Schaub et al. (2014) reported that MDFT and IP did equally well in decreasing delinquency, in youth of the INCANT multi site study. With regards to improving externalizing behaviours, MDFT outperformed IP in this particular study (study 10).

4.7.3 Level of substance use

Substance use is covered in nine of the selected studies, with the tenth study presenting secondary data to a primary study 4 & 10). Hypotheses had been made in most of the studies that family based interventions would outperform interventions assigned to control groups. Some of the researchers may have correctly made this assumption, which was not true for all studies.

In studies 2; 5; 6 & 8 family based interventions had better outcomes compared to interventions that had been assigned to the non-family groups. Slesnick & Prestopnik (2009) report that FFT and EBFT

resulted in better outcomes when compared to services as usual (SAU) administered at the runaway shelter. At the 15months post baseline assessment, alcohol consuming days had significantly dropped for the family based interventions (EBFT 97% drop, FFT 83%) as compared to SAU (59% drop). When looking at the use of other drugs the family therapies resulted in a decrease of 72% combined, compared to SAU where drug use returned to baseline levels. Once Slesnick & Prestopnik (2009) concluded that family therapy results in better outcomes, the authors looked into the two family therapy methods for difference in results. The researchers found that, although both types of family therapies brought a decline in substance use, the youth assigned to EBFT were more consistent in maintaining the decrease. This is in comparison with the youth who had been assigned to FFT, who had quite a rapid decline in substance use at 3months which only levelled off at 15months.

In their study to compare MDFT outcomes with those of peer group therapy, Liddle et al. (2009) substance use. At the 12month follow up assessment the youths assigned to MDFT had reported significantly lower days of substance use as well as increased abstinence from substances, when compared to those in group therapy. When asked about the 30 days preceding the 12month assessment, 7% youth in MDFT reported they had used substances in comparison to 45% of the group therapy youth (Liddle et al., 2009). In study 6, the researchers found that both MDFT and CBT are promising treatment interventions though the family based treatment managed to outperform CBT. The researchers collected data on the youth abstinence rates at 12month, by enquiring about the 30 days preceding the assessment. According to Liddle et al. (2008) 64% of youth in the MDFT group reported no or little use of substance, where a smaller percentage reported no/little use in the CBT group (44%). As the frequency of substance use decreased up to 77% for the MDFT youth, the opposite happened for the CBT group which resulted in increased frequency in using substances (Liddle et al., 2008). Another study in which it had been hypothesized that family based therapy would outperform usual care is that of Hogue et al. (2015). The researchers in this study (8) had found that the family based therapy resulted in greater declines in substance use amongst the randomized youth. At the 12month post baseline assessment, reported abstinence amongst the youth was 40% in the family therapy group and 26% for the usual care group (Hogue et al., 2015) and thus, highlighting family therapy as a promising treatment intervention.

In study 4 (Rigter et al., 2013), the researchers had assumed that both MDFT and IP (TAU) would be effective in reducing the number of cannabis use days. In addition, Rigter et al. (2013) made the

assumption that MDFT would outperform IP when it came the the more severe group of cannabis using youth. At the 12month follow up the number of youth presenting with cannabis use disorders had decreased to 71% in MDFT and 74% IP from the 100% at baseline. According to Rigter et al. (2013) there was an evident shift from dependence to less severe conditions, with 38% youth in MDFT and 52% in IP meeting criteria for cannabis dependence disorder. These results were in line with the hypothesis made by the researchers that both interventions would be effective. The youth groups were then split into low severity and high severity using consumption data collected at baseline. MDFT outperformed IP in decreasing the frequency of cannabis use amongst the high severity group, again meeting the researcher's expectations. Dakof et al. (2015) found that MDFT and AGT (adolescent group therapy) both performed well in reducing substance use amongst youth in Juvenile drug court. At 6 months follow up assessment youth in MDFT has reduced the frequency of substance use by 76% and 65% for group therapy. Dakof et al. (2015) had foreseen an increase in the frequency of substance use at the 24month follow up period, which results reporting an increase of 8% in MDFT and 19% increase in AGT. This remained below baseline levels, having no evidence of the family based intervention doing better than the non-family based intervention.

In study 7, Slesnick et al. (2013) compared EBFT with two other treatment conditions (MI and CRA) where they had expected EBFT to exceed the alternative treatments in reducing substance use. An overall decrease in substance use was seen across all interventions with the EBFT (63,2%) youth shower lesser reductions than its competitors (CRA 82%; MI 82%). EBFT did however outperform the MI in showing consistency in maintaining reductions, while the youth assigned to MI had a quicker relapse. Another hypothesis not met, was that of Hendriks, Van Der Schee & Blanken (2011) who had expected MDFT to have superior outcomes than CBT. Both treatments showed a significant decrease in the number of joints smoked at 12 months follow up. Self-reported on the abstinence from cannabis use was 18,2 % in MDFT youth and 14,8% for CBT, indicating that both treatments were equivalent.

One study that was particularly interested in the long terms effects of family therapy was that of Horigian et al. (2015). In this study, the researchers assessed youth 3 – 7 years post randomization to monitor the ability of EBFT to maintain improvements in substance use. Using the TLFB, youth were asked to give an account of their use of substances in the 90days preceding assessment of which 76% of the assessed youth reported to using substances in the past 90 days, with no significant difference between EBFT and TAU. According to the results, there had been a substantial increase in mean drug

use days from baseline to follow up in both treatment conditions (Horigian et al., 2015). Not only did EBFT not outperform TAU, but both treatment conditions were unable to prevent relapse after terminating treatment.

4.8 Results of Family therapy sessions: Initial study

Although the initial study is incomplete due to limited data, it is important to outline and briefly discuss the outcomes of the study.

Of the two families that had completed treatment, both adolescents had a relapse one week following discharge and two weeks into the family therapy program. With both adolescents, the relapse occurred when they were away from home with friends that still used substances.

The main objective of the study was to administer the family therapy followed by a structured interview that would assist the researcher with gaining insight into the family member's perception of the intervention. These interviews were conducted by the researcher, individually with each member of the family and were recorded with consent (see **Appendix B**).

One of the question asked in the personal interviews were: *Has the family therapy as an intervention, in your opinion, been effective in addressing concerns within the family?*

Family one answered as follows to the question (verbally).

Mother of the IP responded by "Ja, it was" the IP answered "Yes" the sister of the IP had this to say: "Yes it has. In the beginning he was still craving so the fighting was a lot but now it has been calming down. Everything is getting better now". Father of IP responded by "Yes I do".

In the short term all the members of family 1 perceived family therapy effective in addressing concerns in the family.

Interviews were conducted with the IP and mother of the IP in family two and responded to the above question as follows:

IP "The programme has been helpful to my family because even though we have little slip ups now and then, we can now actually talk without a fight or without shouting at one another and throwing names" Mother of IP answered the question as follows; "Yes it was effective, a lot. Because we have learnt to communicate at home, and I also felt like I had another family that I could talk to".

4.9 Discussion of the results

This scoping review provided evidence of 10 studies conducted on family therapy as an intervention in the treatment of adolescents with substance use and abuse. All studies made use of randomised controlled trials as a method, Randomised control trials is considered the gold standard for informing evidence for best practice (Titler, 2008). According to Titler (2008) making use of current best evidence in conjunction with clinical expertise is what defines evidence based practice, which is empirical to improving treatment strategies.

4.9.1 Limitations of the studies

With regards to the studies that had been selected for the scoping review, all cited significant limitations. One limitation that stood out for the researcher was that of relatively short follow up periods, which then fail to give the long term effects of the treatment even after treatment has been terminated. Dakof et al. (2015) included a 24month follow up assessment in attempt to measure the long term effects of family based therapy. By the end of the 24month period, the study had lost 64 participants from the initial 112 group of youth, which limits the accurate reporting of results.

Horigian et al. (2015) found that a high percentage of the participants had relapsed, which may have been due to cessation of treatment and support. Long term effects of family therapy need to be explored more precisely, although this may be difficult due to resources and risk of losing contact with families over time. In study 1, 291 participants of the initial sample of 480 did not participate in the follow up assessment which was scheduled between 3 and 7 years. This gives then, limitations to reporting the results accurately as it was not a reflection of the entire sample (Horigian et al., 2015). This limitation, however, was a reality for a large number of the selected studies with participant numbers decreasing throughout the treatment and follow up phases.

A vital factor to take into consideration when it comes to retaining the adolescent in treatment, is the individual's eagerness and readiness for changing the addiction behavior. Rosner (2013) refers to the Trans theoretical model (TTM) of intentional change developed by Prochaska and DiClemente. The model looks at the stages and suggests best treatment strategies for each particular stage. The model however, does not prevent relapse and the individual may relapse at any of the stages. It is important

that therapist's efforts are consistent with the adolescent's stage of readiness, regardless of the therapy chosen (Rosner, 2013).

Precontemplation: at this stage the adolescent has not had thoughts of changing. The therapist at this stage should focus on building rapport with the adolescent by keeping the contact informal. The therapist may start giving information on the risks, pros and cons of substance use.

Contemplation: at this stage the adolescent has considered changing and is willing to consider the advantages and disadvantages of changing. The therapist at this stage should emphasize the adolescent's free choice and responsibility. The therapist should also discuss the adolescent's goals in life and how recovery would affect them.

Preparation: the adolescent at this stage is planning how and what they want to change. At this stage the adolescent may be willing to consider what types of treatments are available but may not be ready to commit. At this stage the therapist should continue to support the adolescent's effort to change by encouraging the adolescent to commit to change.

Action: the adolescent is implementing the change. May be willing to follow through on referrals to specific treatment. The therapist still offers support, and encouragement even with minimal progress. The therapist helps the adolescent identify risk situations, triggers and coping strategies; and helps the adolescent identify new reinforces.

Maintenance: the adolescent continues to work on the change. The role of the therapist will to be supportive and affirm the changes made. Continue to encourage the adolescent, even to contribute to the recovery of others.

Limitations to the selected studies may be that no information was given related to preparation of the adolescents, which could mean that adolescents had started treatment possibly at different stages of readiness but allocated the same time for treatment. Gogel et al. (2013) suggest that barriers to retention are closely linked to the treatment population, taking into consideration the type of family and community the client resides in. Program elements may also have an effective on whether the adolescent completes treatment or not, such as accessibility of treatment venue and perceived relevance of the program (Gogel et al., 2013). The client's perception and relationship with the counsellor or therapist may also play as a barrier should the counsellor be perceived as judgemental or not invested.

Another limitation that was noted for all, but two (study 4 and 10), of the studies was that of generalizability. This limits transferability of the results across different individual factors such as gender and ethnicity. The studies were conducted at single sites and therefore cannot guarantee the same outcomes should the sites change. This is because different communities will have different views, values and cultures which automatically affect an individual's lifestyle. Some communities may have a more accommodating attitude to substances finding that the parents of an adolescent seeking treatment, are also consuming substances making it easier for the adolescent to relapse even after receiving treatment. Depending on the health system of different countries, access to health care may differ. This in turn means that the cost of family therapy in different countries may limit accessibility to certain families who cannot afford the services. The ethnicity of the participants in the studies also do not give a broad ethnic variety to give confidence regarding transferability through different ethnic groups. A lot of family practices such as conflict resolution, communication and family relationships are closely linked to ethnicity. In a South African black family where the man is seen as the head-of-the-house, it may become difficult for other family members to engage openly in family based therapy with the fear of being perceived as defiant.

Self-reporting was used in all of the studies as a tool for collecting data pre-treatment and post treatment. Although the tools used in the studies were validated, it may still create space for exaggerating or playing down of symptoms and substance use. It was because of this concern that some of the researchers validated self-reporting with urine drug screening to confirm abstinence. Each study had limitations, which are discussed below.

Study 1 was the only study where the long term effects of family based therapy were monitored post and beyond 12months following treatment. Horigian et al. (2015) assessed that participants between 3 and 7 years following randomization. Because there was no set assessment time, participants were assessed at different time intervals. Apart from losing a large number of participants, the variability of the assessment periods was a significant limitation to this study. Due to the long period between treatment and follow up assessment, the researchers could not rule out the possibility of other factors that could have affected the outcomes ;such as other therapies administered during the time preceding assessment.

Slesnick and Prestopnik (2009) conducted their study at a runaway shelter in Albuquerque, which limits the results being applied in other runaway shelters in different cities. Although the study was

targeted at runaway adolescents, the findings may not necessarily apply to adolescents who may not have access to shelters. These limitations are particularly true for the 2013 study conducted by Slesnick, Erdem, Bartle-Haring & Brigham (2013) whose participants were recruited from a runaway shelter in Ohio. Completion of intended treatment was another great limitation for Slesnick, Erdem, Bartle-Harling & Brigham with only 43% of the participants receiving the full treatment. According to the authors this may be due to the fact that not all families will require the total of the prescribed sessions as change may occur easier than in the more difficult and resisting families.

Generalizability was also a limitation for Dakof et al. (2015) whose participants were sourced from the Juvenile drug court in Miami-Dade county. This would mean that the results from the study cannot be assumed true for populations outside of the Juvenile drug court setting or other drug courts in different states. Liddle et al. (2009) had a sample that consisted mostly of African American and Hispanic male adolescents who came from low-income urban families, limiting the application of their findings to this specific group. An addition to the limitation in generalizability was that, like most of the selected studies, this particular study was also conducted at a single site. In 2008, Liddle et al. had participants that were predominantly males of African American ethnicity from lower income families making the results applicable to this certain population.

4.10 Summary

This chapter gave an overview and discussion of the results sourced from the selected studies. The studies produced evidence of the effectiveness of family therapy as intervention in the treatment of adolescents using substances. As mentioned in the results, family therapy did not always outperform the alternative therapies such as group and individual therapy

CHAPTER 5

LIMITATIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter highlights the limitations faced by the researcher, through conducting this scoping review. The chapter further discusses recommendations for research and nursing practice, as well as the conclusions reached from the scoping review.

5.2 Limitations

The more evident limitation of this scoping review may be that the researcher could not source any data related to the research question, for the South African context. This brings about the question of transferability taking into consideration the types of families in South Africa that may be affected by substance use or abuse, the financial standing of these families, the health system and population specific differences.

The researcher was assisted by the supervisor with searching and selecting appropriate studies for the review. The supervisor also assessed the selected studies for relevance to the research question. Levac et al. (2010) believe that having a second reviewer to assist with data extraction and study selection assists with making the process more accurate.

5.3 RECOMMENDATIONS

5.3.1 Research

It is recommended that the 21 day DDU programme, augmented with family therapy, versus the treatment-as-usual 21 day DDU programme offered at private facilities be researched by method of randomized controlled trial. This will generate evidence-based data on the effectiveness of family therapy in the treatment of substance abusing adolescents.

A gap regarding family therapy in developing countries was identified in this scoping review. Studies on the effectiveness of family therapy, as a treatment method for adolescents using and abusing substances should be conducted.

5.3.2 Recommendations for nurses practising in rehabilitation and treatment centres/clinical practice

It is recommended that a culturally adapted family therapy intervention for the South African context be developed, implemented and evaluated.

Registered psychiatric nurses should take initiative into research on family therapy, to broaden the best evidence for practice.

The development, implementation and evaluation of healthy communication and interpersonal relations for families workshops that should form as part of the treatment program.

Although the results from the studies are encouraging of Family based therapies, more research need to be conducted to improve on the practice of family therapy and to explore its effectiveness on other vital factors of substance use in adolescents. Perhaps evidence is needed on what dosage of family therapy is needed to achieve desired outcomes and if continuing treatment following the prescribed dose will improve relapse rates. Continued treatment could consist on NA/AA (Narcotics anonymous; Alcoholics anonymous), home visits and any other support or treatment identified to assist and support the adolescent along with their family. According to NIDA (2014) a period of 3 months or more is suggested as sufficient for treatment of adolescent substance use. This is just one of the aspects needing further research.

It is vital to note the link between research and effective treatment interventions. Evidence based practice relies on the best research evidence available.

The first treatment recommendation would be that of including family therapy in substance use programs for adolescents. This recommendation, however, relies on a number of factors. Research as mentioned above will be an indicator of which strategies need to be applied to enhance the effectiveness of the family therapy treatment. Resources and costs into therapy need to be considered.

Therapy staff need adequate training on manualized family therapy techniques that are found to be beneficial to adolescents with substance use disorders, as they are the most vital resource needed. Adequate staffing of therapy staff especially at state owned substance treatment centres. Anecdotal

evidence suggests that there is insufficient staffing with large client numbers at state facilities in South Africa, making access to specialized services such as family therapy difficult.

5.4 Conclusion

Evidence from the studies included in the scoping review highlight family based therapy as a promising intervention in the treatment of adolescents using substances. The evidence further suggests that with continued treatment, the effectiveness of family therapy in the treatment of adolescent substance abuse may be extended into long term benefits.

The results from the papers chosen for the scoping review indicate family therapy as a promising intervention with significant outcomes for substance abuse in adolescents. Treatment effects of family therapy, such as significant reduction in the use of substances; the ability to retain the adolescents in treatment; and modifying of negative behaviors related to substance use can be noted for up to 12 months post the commencement of treatment sessions.

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Appendix A

R14/49 Miss Beauty Mokgotlane

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

CLEARANCE CERTIFICATE NO. M150704

NAME: (Principal Investigator)	Miss Beauty Mokgotlane
DEPARTMENT:	Nursing Education Akeso Clinic Alberton
PROJECT TITLE:	A Study to Elicit the Perceptions of Family Members on the Effectiveness of Family Therapy as an Adjunct Intervention in the Treatment of Adoclescent In-Patients using Substances
DATE CONSIDERED:	31/07/2015
DECISION:	Approved unconditionally
CONDITIONS:	
SUPERVISOR:	Prof Gayle Langley

APPROVED BY: Professor P Cleaton-Jones, Chairperson, HREC (Medical)

DATE OF APPROVAL: 30/09/2015

This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Secretary in Room 10004, 10th floor, Senate House, University.
I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated, from the research protocol as approved, I/we undertake to resubmit the application to the Committee. **I agree to submit a yearly progress report**.

Principal Investigator Signature Date

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

APPENDIX B

AUDIO RECORDED INTERVIEW FOLLOWING FAMILY THERAPY: PERCEPTION OF THE FAMILY MEMBERS REGARDING THE INTERVENTION.

FAMILY (A)

QUESTIONS

(a) Has the family therapy as an intervention, in your opinion, been effective in addressing concerns within the family?

(b) In your opinion, has the family therapy improved your understanding on substance abuse and how to deal with it?

(c) How has the whole process, family therapy, been for you?

(d) In your experience, did the family therapy enhance the initial 21 day treatment programme?

MOTHER OF IP

(a) Ya, it was.

(b) yes, it helped us. Im not 100% sure if I can go on with it.

(c) ok, I learnt stuff from my daughter's side that I wasn't aware of. And from my son's side and my husband's side. It was nice for me, I learnt a lot.

(d) I think this was more motivating for him…maybe because we all gave in our inputs.

IP

(a) Yes.

(b) A lot, ya.

(c) Well its been lekker, its been good. I saw that it helped a lot around the family stuff. It was good.

(d) The extra sessions helped more.

SISTER OF IP

(a) Yes it has. In the beginning he was still craving so the fighting was a lot but now it has been calming down. Everything is getting better now.

(b) Yes it has.

(c) It has been really understanding, about everybody's opinion of what goes on in the family and just letting my family know how I feel about the situation and about everything that is going on in the family. We actually learnt something new about each other that we didn't actually know.

(d) I think it did…My brother was still craving in the clinic, but when we came to the family therapy, he saw us. He saw how we felt and he became more focused. He saw how it hurt my mother, and my father was stressing.

FATHER OF IP

(a) Yes I do.

(b) Most definitely.

(c) I'd say entertaining. Of course, I've learnt a lot myself, personally. I think it's a good session also to know what your family members have on their minds.

(d) I say yes, but there is still a lot of room for improvement. It has given the guidance into the right direction…it doesn't happen overnight.

FAMILY (B)

IP

(a) The programme has been helpful to my family because even though we have little slip ups now and then, we can now actually talk without a fight or without shouting at one another and throwing names.

(b) It has, because we met up on weekly basis.

(c) At first it was scary, I didn't know what to expect and I didn't know if it would work or not but I knew that my family and I needed communication. We needed to talk about things at one point or another…it turned out that it has helped my family a lot. I don't worry about certain things, the tension has eased.

(d) It did, it also showed me how important recovery is also outside the hospital and not just inside…which is what I was struggling with.

MOTHER OF IP

(a) Yes it was effective, a lot. Because we have learnt to communicate at home, and I also felt like I had another family that I could talk to.

(b) Yes it did help me because the first time when the patient was caught with temptation to use, I didn't know that it was part of the process. Now I understand, it's just that it isn't easy.

(c) It has been very helpful for me because I have learnt to communicate better with my daughters. I'm no longer shouting. It also had an effect to both of them, because the patient is also listening…there is a big change. It also brings a change in me.

(d) Yes I did, because I feel like it's not that when she is discharged it's the end of the road for her. It helped a lot, because it was like a continuation.

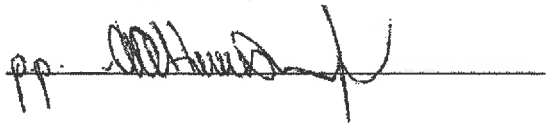
APPENDIX C

I, Franza von Horsten (SA ID number 540610 0025 083),

hereby testify that I edited and proofread this research report on teenage substance abuse treatment, written by Ms Beauty Mogotlane, and completed said edit on Tuesday 13 February 2018.

Qualifications:

- BA Honours English Literature, UNISA
- MA Applied Linguistics, University of Johannesburg



Date: 14 February 2018

Place: Montagu, Western Cape

APPENDIX D

beauty_draft1

by Beauty Mogotlane

Submission date: 10-Feb-2018 04:33PM (UTC+0200)
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