# Being-with-drug to Being-in-the-World

## Sartre or medication? - A comparison of the existential and medical models of addiction

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## Dedication and Acknowledgement

This thesis is dedicated to my loving wife and parents for their constant support and dedication through my academic journey.

I would like to thank my supervisor, Ms. Kate Thompson, at the New School for Psychotherapy and Counselling, London. Her thorough guidance and encouragement were most valuable in the completion of this project.

Furthermore I would like to thank the patient who, through multiple reviews, inspired me to research this topic.

**Contents**

## Abbreviations

| | |
|---|---|
| AA | Alcoholics Anonymous |
| APA | American Psychiatric Association |
| CBT | Cognitive Behavioural Therapy |
| CDC | Centers for Disease Control and Prevention |
| DDU | Dual Diagnosis Unit |
| DSM-5 | Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition |
| EMCDDA | European Monitoring Centre for Drugs and Drug Addiction |
| GABA | Gamma-Aminobutyric Acid |
| ICD-10 | International Classification of Diseases, Tenth Edition |
| MFB | Medial Forebrain Bundle |
| NA | Narcotics Anonymous |
| NAcc | Nucleus Accumbens |
| NICE | National Institute for Health and Clinical Excellence |
| NIDA | National Institute on Drug Abuse |
| NTA | National Treatment Agency for Substance Misuse |
| OCD | Obsessive Compulsive Disorder |
| OST | Opioid Substitution Treatment |
| VP | Ventral Palladium |
| VTA | Ventral Tegmental Area |
| WHO | World Health Organisation |

## Declaration of Authenticity

| | |
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| Name and Surname: | Dr. Giovanni Grech |
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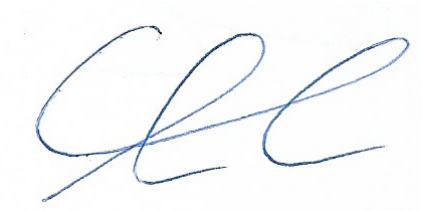

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**Abstract**

This research seeks to investigate the boundary between the existential and medical models of addiction and the contributions which each model makes towards this topic. A literature review for both models is presented, delving into the areas of addiction best described by each model. Through the existential definition being-with-drug, addiction is conceptualised in terms of a relationship with the drug and the impact on one's self. On the other hand, the medical model focuses on diagnostic criteria, genetic and environmental risk and protective factors, and an underlying neurobiological explanation. Phenomenological research supporting existential psychotherapy in addiction is contrasted with the quantitative medical research which forms the basis for current guidelines for the management of addiction. A comparison of both models is presented focusing on the issues of coping, choice, responsibility, disease, mandatory treatment, medication, psychotherapy and the therapeutic relationship. In contrast to the prevalent disease model, the existential view maintains that drug addiction is a coping mechanism used to mitigate existential and neurotic anxiety which results from facing the existential givens. The biopsychosocial model used by doctors is compared to van Deurzen's model of existence, which provides the basis for existential psychotherapeutic interventions. Furthermore, existential literature was examined to determine whether an individual can authentically choose to live a life of addiction. In conclusion, this paper serves as a basis for future research of the boundary presented. Furthermore, both models seem to develop the arguments they provide beautifully but fail to give a holistic view of addiction. Hence, a combination of both models is necessary to address the diversity of issues clients/ patients present with. Finally, the existential model goes beyond abstinence, being-without-drug, and aims for a life long project of authentic living.

Keywords: disease, compulsion, being-with-drug, choice, responsibility

# Introduction

Interest in the existential principles underlying substance addiction emerged whilst working in a Dual Diagnosis Unit (DDU) at the national mental hospital. As a psychiatric trainee working within an addiction psychiatry firm, I had the opportunity to review on a regular basis a group of patients suffering from substance misuse. This led to the development of a therapeutic relationship, following which patients felt comfortable divulging underlying issues that had precipitated and maintained their addiction.

Within a DDU setting most of the issues mentioned were related to mental illnesses, such as depression and bulimia nervosa. Nonetheless, many patients struggled concurrently with existential concerns, including existential anxiety, freedom, choice and a search for meaning. Throughout my attachment with the firm I realised that whereas the former psychiatric illnesses were adequately treated, a holistic management plan that addressed the existential issues was lacking.

A strict medical model framework falls short of fully managing patients suffering from substance misuse as the illness is pervasive causing difficulties within the psychiatric, physical, social, family, housing, employment and legal domains (Semple & Smyth, 2013). My experience confirms the array of difficulties encountered, especially since our patient group had a high relapse rate and was frequently non-compliant to the management plan.

This thesis sets out to compare and contrast the existential and medical models of substance addiction, focusing mainly on opioid and cocaine dependence. To achieve this a discussion of the definition of addiction will be presented, according to the International Classification of Diseases, Tenth Edition (ICD-10) and Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) which are widely used within psychiatry. This definition will be compared to a Heideggerian definition. Subsequently, an existential model of addiction will be developed drawing from existential and phenomenological literature. The medical model will then be discussed in detail to allow for future

comparison. The evidence base for treatment according to both models is presented. A priori, my experience leads me to assume that there are stark differences between the two models and in the discussion I intend to examine these difference and any similarities that may exist. Excepts from phenomenological literature as well as from Trainspotting (1996) and Confessions of an English Opium Eater (De Quincey, 1821) will be used to further highlight the experience of substance addiction. Through this thesis, I hope to examine the boundary between these two models in the hope that this may be translated into therapeutic work.

This endeavour challenges my academic bias, derived from five years in medical school and four years working as a doctor, all contributing toward my essence of being as a doctor, and hence my view of the medical model.

Nevertheless, my experience makes me eager to explore different models in search of a more holistic explanation of addiction. Consequently, I hypothesise that neither model fully explains addiction and clients/patients will benefit more through a combination of models. Furthermore, the secondary hypothesis is that unresolved existential issues underlie addiction. I postulate that focusing on existential issues within the multidisciplinary management plan will give clients/patients a better chance of maintaining sobriety. This will, in turn, enable them to recover from their concurrent mental illness as well as helping them reintegrate into their family, social and work environments.

Hence, this thesis aims to go beyond the medical perspective of achieving a state of sobriety; 'being-without-drug'. Instead, keeping in mind the broad definition of health given by the World Health Organisation (WHO) (2006), as well as existential issues, a holistic view of substance misuse will be examined; moving from a state of 'being-with-drug' (Trujillo, 2004) towards the goal of achieving the Heideggerian state of 'being-in-the-world' (Heidegger, 1996).

# Chapter 1: Addiction and Addiction Disorders

## 1.1 Definition of Addiction

A lack of consensus as to the definition of addiction exists, which causes repercussions both when conducting research as well as when using the term in the clinical setting.

Addiction is defined as the 'condition of being physically and mentally dependent on a particular substance or activity' in the Oxford Dictionary (Oxford English Dictionary, 2017), whereas the Webster Dictionary defines the term as the 'compulsive need for and use of a habit-forming substance characterised by tolerance and by well-defined physiological symptoms upon withdrawal' (Merriam-Webster.com, 2017). Other definitions focus on the use of a reinforcing and intrinsically rewarding stimulus despite negative consequences (Nestler, 2013a).

In DSM-5, the authors refrain from using the term addiction in view of its ambivalent definition and utilise 'substance use disorder' instead. They claim that professionals use addiction to refer to the extreme end of the substance use disorder spectrum. (APA, 2013a, p.485)

These definitions prompt further questioning on the difference between addiction, dependence, tolerance and withdrawal. Addiction and dependence are sometimes used interchangeably (APA, 2013b), as exemplified by the Oxford Handbook of Psychiatry which refers to addiction as the term used by the layman to refer to the dependence syndrome (Semple & Smyth, 2013, p.540). On the contrary, some draw a distinction between the two by stating that addiction does not include withdrawal symptoms (Malenka et al., 2015).

## 1.2 Addiction Disorders

Both the DSM-5 and the ICD-10 put forward a number of criteria for the diagnosis of addiction disorders to simplify the diagnostic difficulties for the clinician. These manuals describe acute intoxication, at-risk use, harmful-use, and the dependence syndrome together with the symptomatology of withdrawals and tolerance.

### 1.2.1 The Dependence Syndrome and Substance Use Disorder

The features of the dependence syndrome described in the ICD-10 (1992) and the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (2000) are based on the criteria originally reported in 'Alcohol dependence: provisional description of a clinical syndrome' by Edwards and Gross (1976). In the DSM-5 (2013a), substance use disorder describes the same phenomena, under a different name, to avoid the uncertainty surrounding the definition of addiction. The severity of the disorder is determined by the number of symptoms present, change in the substance dose and frequency of use. Symptomatology of the substance use disorder is categorised into symptoms of impaired control, social impairment, risky use and pharmacological criteria as described in Table 1.

**Substance Use Disorder - Criterion A**

| Category | Criterion | Symptoms |
|---|---|---|
| **Impaired Control** | 1 | Substance use in larger amounts or over a longer period than was originally intended |
| | 2 | Persistent desire to cut down or regulate substance use<br>Multiple unsuccessful efforts to decrease or discontinue substance use |
| | 3 | A great deal of time spent obtaining the substance, using the substance, or recovering from its effects |
| | 4 | Craving, manifested by an intense desire or urge for the drug, that may occur at any time but is more likely when the individual is in an environment where the drug was previously obtained or used |

| Category | Criterion | Symptoms |
|---|---|---|
| **Social Impairment** | 5 | Failure to fulfil major role obligations at work, school, or home |
| | 6 | Continued substance use despite having persistent social or interpersonal problems caused or exacerbated by the effects of the substance |
| | 7 | Important social, occupational, or recreational activities are given up or reduced because of substance use |
| **Risky Use** | 8 | Recurrent substance use in situations which are physically hazardous |
| | 9 | Failure to abstain from substance use despite knowledge of having recurrent physical or psychological problems that are likely to have been caused or exacerbated by the substance |
| **Pharmacological criteria** | 10 | Tolerance, defined as requiring an increased dose to achieve the same effect |
| | 11 | Withdrawal syndrome consists of substance specific behavioural, physiological and cognitive disturbances, that occur secondary to the cessation of, or reduction in substance use in an individual who had maintained prolonged heavy use of the substance |

*Table 1: Adapted from APA, 2013, p.483-484*

The dependent individual can be further classified as being actively using the substance (WHO, 1992), in early remission, in sustained remission, on maintenance therapy, or in a controlled environment (WHO, 1992; APA, 2013a).

### 1.2.2 Relationship between Substance Use and Mental Illness

Further diagnostic definitions are presented to characterise the relationship between substance use and mental illness based on the temporality between onset of both conditions.

A mental illness that emerges within one month of intoxication or withdrawal from a substance capable of producing the illness, is classified as substance induced mental disorder. This presentation goes beyond the symptomatology related to intoxication or

withdrawal from a substance and can be exemplified by cocaine-induced psychosis and opioid-induced depressive disorder. (APA, 2013, p.487-489)

If however the symptomatology persists beyond the one month period, the mental illness is then classified as a separate disorder (APA, 2013, p.487-489). Furthermore, in some individuals the mental illness precedes substance use and propels one to self medicate with substances. If this is the case, it is ideal to address substance use first as this is likely to exacerbate the underlying disorder (Semple & Smyth, 2013, p.541).

## 1.3 The Medical versus Heideggerian Definition of Addiction

In view of the dominance of medical literature within the addiction field, the best widely accepted definition to conceptualise addiction was defined by O'Brien and Gardner (2005) as the disease of the 5 C's: characterised by c*ontinued compulsive* drug use despite injurious c*onsequences*, coupled with the loss of *control* and persistent drug c*raving*.

However, through examining the criteria for substance dependence one can understand addiction in terms of a relationship with the drug. This relationship is broadly described by a behavioural pattern characterised by progression of severity, preoccupation with the activity, perceived loss of control and persistence despite negative long term consequences (Walters, 1999).

In Heideggerian philosophy the term 'Being-with' refers to a person's inherent relation to others (Heidegger, 1996). This term conceptualises the fact that humans are social beings and that their thoughts, actions and feelings are characterised by social interaction. Trujillo (2004) coined the term 'being-with-crack' to reflect an individual's relationship with the drug in substitution of one's relationship with others.

For the purpose of this thesis, the term 'being-with-drug' is used as an existential definition of substance addiction, which is not specific to crack cocaine. In this mode of

existence, the person's relationship with society is compromised as drug addiction determines one's behaviour.

This contrasts with the widely accepted definition of addiction based on medical literature. In summary, the medical definition places addiction as a disease, described in terms of signs and symptoms, external to the individual. On the contrary, the existential definition focuses on the impact the addiction places on the person's identity and his/her world, and hence, addiction cannot be separated from the individual's self.

## Chapter 2: The Existential Model of Addiction

### 2.1 Existential Psychopathology

Psychopathology, as understood from an existential point of view, occurs through the avoidance of our existential givens and the conflict that arises within each of them.

### 2.2 The Existential Givens

Existential philosophy proposes that part of 'being' involves encountering the universal ultimate concerns or existential givens. These are not pre-determined but rather are part of who we are. Yalom (1980) discusses the four existential givens: death, freedom, existential isolation and meaninglessness. When we encounter these concerns, conflict arises. However, this is viewed as an opportunity for growth, as facing these concerns is 'ultimately healing' and 'great wisdom' can be achieved about who we are and our place in the world (Zafirides, 2013).

#### 2.2.1 Death

From early on in life we are aware of our finitude and the conflict arises within the tension between our knowledge that our life will end and our inherent wish to continue living indefinitely. Death is a 'core existential conflict' (Yalom, 1980) and hence the resultant anxiety is inevitable (Tillich, 1952).

#### 2.2.2 Freedom

Freedom is not necessarily positive within an existential framework, as it is inherently tied to responsibility. In fact, Sartre (1956) reminds us that we are 'condemned to be free'. This famous adage allows us to reflect on the fact that since we live in an unstructured world, we are the 'author of' (Yalom, 1980) our own life. Consequently not only do we have to

carry the responsibility of our choices but also face the fact that we have to chose without any assistance. Hence the conflict which arises is the tension between the groundlessness of our unstructured world and the responsibility of our choices. Humans yearn for structure because in the absence of freedom there is no anxiety (van Deurzen, 2002).

### 2.2.3 Existential Isolation

In existential philosophy our aloneness in the world does not refer to interpersonal or intrapersonal relationships but rather a more pervasive sense of aloneness; 'a separation between the individual and the world' (Yalom, 1980, p. 355). It exemplifies itself in the fact that we are born and die alone. Furthermore it can also refer to the fact that we alone can truly understand our own suffering, and even though others can empathise with our situation, only the individual can fully experience the situation. Hence the conflict between isolation and protection and being part of a larger whole arises (Yalom, 1980).

### 2.2.4 Meaninglessness

The conflict that arises from this existential given is the divide between the individual with a 'will to meaning' (Frankl, 1959, p. 121) living in a world which is meaningless. Frankl (1959) sees the search for personal meaning as a 'primary motivational force' and hence existential psychotherapy encourages to client to find meaning and purpose. Furthermore the responsibility to find meaning lies with the individual.

## 2.3 The 'Existential Onion'

Used in psychotherapy, the image of an onion can help one understand that throughout life layers of healthy or unhealthy psychological coping mechanisms prevent the individual from encountering the ultimate concerns. A common coping mechanism involves raising a family so that one mitigates the existential anxiety secondary to death through the continuation of one's legacy. (Zafirides, 2013)

When one's coping mechanisms are unable to prevent us from encountering the ultimate concerns, anxiety arises, first unconsciously but this becomes ever more conscious as one approaches the concerns (Zafirides, 2013).

## 2.4 Anxiety

Anxiety is a feeling of worry or uneasiness which presents itself in a variety of symptoms or illnesses (APA, 2013c).

### 2.4.1 Existential Anxiety

Existential anxiety results from facing the existential givens previously discussed and is thus an inevitable part of living (Yalom, 1980), as it results from facing the inescapable facts of human life (Heidegger, 1996). Some of the existential philosophers have given more weight to one of the ultimate concerns. Frankl (1959) focused on the lack of meaning, Tillich (1952) on nothingness, Binswanger (1958) on emptiness while Heidegger puts it down to the recognition of oneself and one's finitude (Heidegger, 1996) or as May (1977) put it, 'the imminent treat of non-being'. Binswanger (1958) praised future oriented individuals as they confront the existential principles.

Existential philosophers and psychotherapists encourage us to face this anxiety and use it as a force towards courage (Tillich, 1952) and creativity (May, 1975) in one's quest for authenticity. Consequently using this philosophy we move away from viewing anxiety as an illness and instead we are encouraged to embrace it as a tool for positive change. In fact, one of the aims of existential psychotherapy is to learn to utilise one's own anxiety as Kierkegaard (1946) stated - 'whoever has learnt to be anxious in the right way, has learnt the ultimate'.

### 2.4.2 Neurotic Anxiety

On the contrary, neurotic anxiety occurs when one avoids existential anxiety and thus lives in bad faith (Sartre, 1965). Consequently this type of anxiety involves feelings of despair, failure to make choices and avoidance of responsibility (Jones-Smith, 2012). Linking this to Heideggerian philosophy, Tillich states that we 'avoid non-being by avoiding being'. This occurs in favour of security, in the defence from the meaninglessness of existence (Tillich, 1952).

This type of anxiety contrasts with normal anxiety which is proportional to the confronted treat, is symptom free and allows us to deal with the cause of anxiety. Whereas normal anxiety increases performance, neurotic anxiety decreases it. Hence, although normal and existential anxiety may be the driving force for change, neurotic anxiety is repressed by the individual and causes destruction and paralysis. (May, 1977)

## 2.5 Addiction

Within an existential model, substance misuse is viewed as a way of coping with and reducing the existential anxiety which results from getting closer towards the universal givens. Furthermore it can also serve as a coping mechanism to deal with the neurotic anxiety that arises from the avoidance of the ultimate concerns.

Phenomenological research around the topic of addiction links drug use to primary suffering, which motivates individuals to use substances (Chen, 2010), in an attempt to create meaning (Wurm, 2003).

Hence, addiction follows closely the self-medication hypothesis developed by Khantzian (1985), wherein the individual self-medicates for psychological, situational, emotional, interpersonal and social problems. Drugs allow relief from suffering, anxiety, and unbearable feelings (Wiklund, 2008a). Consequently, the addict uses drugs as the

alternative is unbearable (Barros, 2012), and hence, seen from this perspective addiction makes sense in the circumstance (Schaler, 2000). Furthermore drug provides the person with an improved self perception as Maria stated, 'I had an identify when I was on drugs' (Wiklund, 2008a).

## 2.6 Being-with-Drug

### 2.6.1 The Ontological Level

The ontological level is characterised by a move away from Being-there and Being-in-the-World in favour of Being-with-Drug, a state engulfed by the relationship with the substance (Trujillo, 2004, p.171). The addict's body does not remain 'a platform for Being' (Kemp, 2009a) but rather becomes controlled by a craving-withdrawal cycle (Evstigneeva, 2013). Craving is experienced as an urgent threat to one's existence (Trujillo, 2004, p.173-174). In fact, a participant states, 'To me it was like a beast that takes over inside and just pushes you to get more' (Trullijo, 1998a) while another states, 'if I don't get it, I'm gonna die'. (Trujillo, 1998b). Nevertheless, using the drug occurs both as a way to avoid craving (drive-to-be-free-of-craving), as well as, to experience the euphoric effect (drive-to-be-high) in one event (Trujillo, 2004, p. 175). An addict stated, 'I would wanna get high, but I would wanna get high to satisfy the craving' (Trujillo, 1998c).

The narcotic rhythm isolates the addict from the world as the person's ultimate concern is the drug, as exemplified by, 'everything is around crack' (Trujillo, 1998d). Consequently the person is only engaged in drug related behaviour such as drug seeking, acquisition, use, intoxication and withdrawals. Furthermore, the addicted individual may engage in illegalities, such as theft, prostitution and drug trafficking, to sustain the addiction. 'You can get the money any way you want to and you do anything' (Trujillo, 1998e) clearly demonstrating a shift away from 'Being-with'. In this mode of existence, there is a shift from concern-with-others to concern-with-drug (Trujillo, 2004) in which all one can think of is the drug (Trujillo, 1997a).

As a result, the user does not fulfil social obligations such as going to work and caring for family members including one's children (Trujillo, 1998f). Furthermore the addicted individual manipulates others to procure funds for drugs (Trujillo, 1998b). Consequently one cannot trust in the social world as one does not benefit from the safety and security that the social world provides (Evstigneeva, 2013).

The drug reliably offers a safety and protection by causing a trance like state. The addicted person seeks this safety and experiences the drug as a 'crutch to survive in the world' (Zyl 2007, p. 65).

### 2.6.2 The Axiological Level

In a Being-with-drug world the addict 'no longer values' (Trujillo, 1998g), and the only thing that is prized is the substance. The dependent individual does not experience the closeness and relationship with people. On the contrary people are reduced to a 'what' (Trujillo 2004, p. 179) and hence like objects, people are used to perpetuate the addiction (Kemp 2009a, p. 128). Within the drug world, no change occurs and the value of time fades away in favour of a perpetuation of the addiction (Evstigneeva, 2013).

When the depend individual attempts to leave the drug world, one experiences withdrawals and hence the drug use resumes to cope with the pain. Hence as all other relationships have diminished, the dependent individual continues the relationship with the substance, akin to 'a love story' (van Zyl, 2007, p. 30).

### 2.6.3 The Ethical Level

The addicted individual lacks self esteem and without the drug is unsure of who s/he is, experiencing oneself as 'void' (Wiklund 2008b). The road to conquering these issues and achieving authenticity requires hard work. However trough the use of the substance the addicted individual experiences an immediate 'sense of being truly me' (van Zyl 2007, p.

73). Consequently the 'addicted self' takes over the 'normal self' in favour of a pseudo-authenticity which the drug provides.

### 2.6.4 The Praxeological Level

The dependent individual is unable to achieve context to his/her life as only the substance is valued and has meaning. The substance does not allow for a future because time is quantified through the drug's salience, moving in a cycle from one hit to the next. The substance itself provides context with a drug-specific language, items, and lifestyle. Hence the individual attempts to achieve meaning through drug use (Kemp 2009b, p. 13) and acquires a new project; 'the project to-be-high-and-free-of-cravings' (Trujillo 2004, p. 176).

## 2.7 Existential Issues of Living with Addiction

### 2.7.1 Meaning - Meaninglessness

One's past experiences influence the meaning one prescribes to life. Experiences of worthlessness and shamefulness result in one experiencing life through this point of view, which causes a sense of meaninglessness (Wiklund, 2008a). Through a sense of caring one can help the addict to restore a sense of dignity and self worth (Wiklund, 2008b).

### 2.7.2 Connected - Loneliness

Although drugs provide a sense of confidence and allow one to become part of a community, this comes at the expense of the loss of the recognition of the self (Wiklund, 2008a). As addicts perceive themselves as worthless, it is difficult for them to connect with others. The therapeutic relationship should be characterised by connectedness as this serves as a template through which the addict can explore and re-invest in him/herself (Wiklund, 2008b).

### 2.7.3 Life - Death

In view of the meaninglessness, loneliness and inauthentic living related to addiction, the addict questions his/her right to live (Wiklund, 2008a). In therapy one needs to validate the suffering felt. Speck (2005) notes that spirituality may act as a driving force to survive through one's suffering.

### 2.7.4 Freedom - Adjustment

Within interpersonal relationships, freedom is seen as the ability to portray who one truly is. When one is isolated and alone, one attempts to adjust with the intension of fitting in (Wiklund, 2008a). In fact Maria states 'The most important thing for me is somebody who listens to me, just listens'. Consequently one should aim to accept and acknowledged the recovering addict as a unique and worth human being (Wiklund, 2008b).

### 2.7.5 Responsibility - Guilt

When one is not using drugs, connections with other persons form and through these relationships one feels responsibility for and guilt related to past actions. It is not uncommon that the recovering addict attempts to correct his/her wrong doing (Wiklund, 2008a). One must support the individual so that dignity is restored, hope is instilled and the person re-orientates himself towards the future (Wiklund, 2008b).

### 2.7.6 Control - Chaos

The dependent individual self-medicates with substances to cope with suffering, loneliness, meaninglessness and guilt in an attempt to achieve some control. However the use of drugs provides only temporary relief and results in a situation in which the addict is further detached from authentic living (Wiklund, 2008a). During therapy, the client must find new ways to cope with life's challenges without the use of the drug (Wiklund, 2008b).

## 2.8 Overcoming Addiction

Biernacki (1986) proposed that individuals addicted to substances decide to conquer their addiction either when they experience an existential crisis or else when they hit rock bottom.

### 2.8.1 Existential Crises and Boundary Situations

An existential crisis refers to one's questioning of the existential givens. This process is anxiety provoking as one challenges the defence mechanisms previously separating one from the awareness of the ultimate concerns. A boundary situation is an acute situation which brings a person face to face with an existential situation (Yalom, 1980). The individual suffering from addiction may face death after an unintentional overdose of the substance or due to the death of a friend. Other examples include an irreversible decision, commitment to a relationship (Yalom, 1980) or being a good parent, a new lifestyle or purpose (Bammer & Weekes, 1994) which challenges one's freedom and meaninglessness. There is a clear link with life transitions which will be further developed within the medical model as these are also considered as risk or protective factors for substance use within this model. The individual may respond to existential crises with anxiety, dread or despair. However though an existential perspective such experiences are seen an opportunity that may propel the individual to adopt an 'entirely different perspective' (Yalom, 1980) through which one moves towards authentic living.

### 2.8.2 Secondary Suffering

As discussed above, repeated drug use and addiction results in a number of existential dilemmas which compound difficulties across the physiological, emotional, familial, social, economic and legal domains. In fact it is not uncommon that the addict suffers from feelings of embarrassment, isolation, powerlessness, despair, desperation, rejection, stigmatisation, and guilt (Chen, 2010).

Secondary suffering refers to when the cumulative effect of these problems result in unbearable suffering (Chen, 2010). This is referred to colloquially as 'hitting rock bottom'. However this is not necessarily a bad outcome as secondary suffering is a motivator to seek help, treatment and recovery. In fact, addicted individuals stop using drugs when the effect of continued drug use, on their life and their future, becomes intolerable and outweighs the benefit achieved from the drug (Barros, 2012; Biernacki,1986). Studies show that the higher the degree of suffering, the greater the motivation to reassess one's life (Nwakeze, Magura & Rosenblum, 2002). In fact recovery is directly related to the person's insight and the person's commitment to self change.

This relates to the existential search for meaning. As Neitzche (1973) put it, 'he who has the why to live, can bear with almost any how'. The suffering experienced becomes less painful when one finds meaning within it. This occurs when the suffering experienced by the addict brings about change (Sartre, 1965). In fact meaning can mitigate the effects of suffering, guilt and death (Frankl, 1959). Consequently, recovery results from a change in the addict's self and his/her relation to the world, moving towards being-in-the-world.

## Chapter 3: The Medical Model of Addiction

The medical model is presented hereunder in preparation for its comparison with the existential model of addiction. The model presented is based on a template of how diseases are classified and studied; with focus given to risk and protective factors, genetics, and an underlying pathological explanation. The definition of the various addiction disorders has already been presented to aid introduction to the different definitions of addiction. Furthermore, aspects related to its evidence base and treatment will be discussed in the following chapter.

The medical model of addiction describes addiction as a chronic disease with a relapsing and remitting course. It maintains that the disorder is the end result of an interplay between genetic and environmental factors (Hicks et. al, 2013), which predispose to substance use that leads to neurobiological sequelae (Gardner, 2011)

### 3.1 Risk and Protective Factors

The interaction between risk and protective factors may be the key to understand why only some individuals suffer from addiction. Risk factors increase the likelihood of developing addiction, however their effect may be reduced or negated by protective factors. It is the equilibrium between these factors that will determine one person's risk. The relationship between the two occurs on a personal level, as some factors may increase risk in one person but not in others, and hence should be explored on a case by case basis. Moreover, risk factors will not necessarily result in addiction but may put an individual on a developmental risk trajectory. (NIDA, 2003)

The National Institute on Drug Abuse proposes five domains across which risk and protective factors exist, discussed in detail hereunder (NIDA, 2003). Such domains allow for a framework through which one can investigate and mitigate these factors.

### 3.1.1 The Individual Domain

#### 3.1.1.1 Genetic Factors

The genetic makeup is thought to contribute around 50% of a person's vulnerability to substance misuse (Demers et al., 2014). Goldman et al. (2005) claim that this varies with the substance used, ranging from a heritability of 39% for hallucinogens to 72% for cocaine. Identifying the responsible genes may prove challenging (Demers et al., 2014), probably due to the large number of genetic and non-genetic factors involved (Nestler, 2013a). In fact, genetic research shifted the construct of addiction away from a homogeneous one. It is interesting to note that whereas familial, social and environmental factors are instrumental in the early stages of substance experimentation and use, genetic factors play a role in young to middle adulthood (Demers et al., 2014; Bevilacqua & Goldman, 2009).

At present genetic information regarding response to psychiatric medication is limited, resulting in treatment failing to address symptoms in 30% to 40% of patients (Haile et al., 2009). Hence, genetic studies are focusing their attention on identifying which patients will respond to a specific treatment with the aim of establishing a genetic guided approach. The latter will give rise to a better response rate, increased compliance and less side effects (de Leon et al., 2006).

Genetic guided approach can be exemplified by the better outcomes obtained on methadone as opposed to buprenorphine in Africo-Americans carrying a particular subtype of the delta opioid receptor (Crist et al., 2013). In another study, the response to the cocaine vaccine was noted to be superior in individuals carrying specific variants of the dopamine beta-hydroxylase gene (Kosten et al., 2013), known to be related to cocaine induced psychosis (Cubells et al., 2000).

3.1.1.2 Age and Gender

The younger the age at which one first dabbles in drugs the greater the risk, secondary to the negative effects on the developing brain (NIDA, 2003; Mordey, 2015). As teens grow older they gain more autonomy and may seek to use drugs (Bevilacqua & Goldman, 2009). Furthermore they take an active role in the selection of their environment, where drugs may be available (Bevilacqua & Goldman, 2009). This results in higher contextual risk (Hicks et. al, 2013).

Males are more susceptible to develop an addiction (Mordey, 2015; Mayo Clinic, 2017). This is because they have lower socialisation scores, and are offered drugs more frequently and at a younger age than their counterparts (Hicks et. al, 2013). On the other hand, females progress faster in their addiction career though they tend to respond positively to parental support and discipline (Mayo Clinic, 2017).

3.1.1.3 Personality Traits

Personality traits such as lack of impulse control (NIDA, 2014), poor coping skills (Mordey, 2015), painful psychological feelings (Mayo Clinic, 2017), antisocial traits, disinhibition, internalising distress, difficult temperament, boldness and low socialisation increase the risk for substance use (Hicks et. al, 2013). These personality characteristics may increase risk directly or by increasing exposure to high risk contexts.

3.1.1.4 Mental Illness

A high rate of comorbidity exists between mental illness and substance use (NIDA, 2010). Mental illness can precipitate substance use through self-medication. In fact, the risk for substance use doubles in people suffering from anxiety and depressive disorders (NIDA, 2010).

### 3.1.1.5 Family History

A family history of substance use poses an individual to an increased risk in view of genetic susceptibility, as previously discussed (Mayo Clinic, 2017).

### 3.1.1.6 Life Transitions

Some life transitions such as puberty, moving house, going to college, and divorce leaves one vulnerable to substance misuse. Other transitions that allow individuals to adopt new life roles, such as getting married or entering the workforce, may be protective. (NIDA, 2003)

### 3.1.2 The Family Domain

The family environment can be both a protective and a risk factor for substance misuse. An environment which provides a strong bond between the child and parents, parental involvement and monitoring, parental support in financial, emotional, cognitive and social matters and clear and consistent limits with adequate enforcement of household rules decreases the risk of substance use (NIDA, 2003).

On the contrary, an environment in which parents are abusive, uncaring (Mordey, 2015), and provide ineffective parenting (NIDA, 2014; Hicks et. al, 2013) increases the individual's risk. Other risk factors include lack of attachment (NIDA, 2014; Hicks et. al, 2013) and nurturing, chaotic home environment, a care giver who abuses substances (Mordey, 2015; Hicks et. al, 2013), suffers from a mental illness or is involved in criminal behaviour, and the availability of drugs at home (Mordey, 2015). Furthermore parental conflict, divorce, financial and legal difficulties also increase risk (Hicks et. al, 2013).

Childhood adversity as well as other environmental risk factors were found to modulate gene expression via epigenetic mechanisms (Nestler, 2013b).

### 3.1.3 The Peer Affiliation Domain

Involvement with peers who abuse drugs, and the belief that drug use is socially acceptable increases the risk for addiction. People who struggle to be accepted in a social group are less likely to decline an offer to use drugs (Mordey, 2015; Mayo Clinic, 2017).

### 3.1.4 The School Domain

Poor academic performance and inappropriate classroom behaviour have been linked to substance misuse. On the contrary, academic competence, extracurricular activities and anti-drug use policy have been shown to reduce the risk of substance use. (NIDA, 2003)

### 3.1.5 The Community Domain

The community in which one lives also poses risk and protective factors. Strong neighbourhood attachments, prosocial institutions and norms against substance use are protective (NIDA, 2003). Despite this, drug availability and trafficking patterns can still pose a significant risk (NIDA, 2003). Furthermore, areas with high levels of crime, poverty and residential instability are associated with higher risk (Hicks et. al, 2013).

### 3.1.6 Risk and Treatment

By evaluating risk and protective factors, a potential avenue for treatment arises. Treatment should strive to shift the equilibrium towards protective factors, by working with the patient to increase protective factors and decrease risk factors.

## 3.2 Personality, Gene and Environment Correlation

As previously discussed, it is the interplay between genetic, personality and environmental factors that determines an individual's risk for substance use (Bevilacqua &

Goldman, 2009). Two models through which these domains influence each other are selection and mediation. The former refers to a process by which a person-level characteristic leads to increased exposure to an environmental risk factor. On the other hand, mediation is a process by which a distal risk factor influences a more proximal risk factor, which then has an impact on outcome. Low socialisation is influenced by both models. (Hicks et. al, 2013)

Further interaction between risk factors is demonstrated via passive, evocative and active processes. A passive transaction refers to a situation whereby genetic and environmental risk factors occur independent of one's behaviour. Evocative transactions result when a person-level risk factor evokes negative responses in the environment, whereas active processes occur when the person, due to person-level risk factors, seeks out experiences that increase risk. (Hicks et. al, 2013)

The correlation between the three domains can be appreciated through the examples of low socialisation and boldness. Genetic and environmental factors exert influence on low socialisation. The latter is a person-level risk factor as it is related to externalising behaviour and behavioural disinhibition, which in turn contribute to high risk contexts. Low socialisation is associated with academic failure and disengagement, lack of prosocial peers, poor parent-child relationships and stressful life events. The failure to bond with socialising agents result in depressed mood, hostility and antisocial peer affiliation. This results in delinquent behaviour, problems with police and substance use. (Hicks et. al, 2013)

In contrast, boldness has a high heritability and is thought to be unrelated to environmental risk. It refers to a combination of lack of shyness, low social and object fear, and comfort in novel and potentially frightening situations. Hence, boldness increases risk in the moment, due to decreased fear reactivity and a bias towards reward. (Hicks et. al, 2013)

### 3.3 Substance Misuse

Substance misuse is the most significant risk factor for addiction (Mordey, 2015; Mayo Clinic, 2017). The neurobiological sequelae precipitated by the use of the drug, increase one's vulnerability to future substance use. The mode of administration also has an impact on further use, with the smoked and intravenous routes carrying the highest risk secondary to their fast acting properties (NIDA, 2014; Mordey, 2015). Moreover, use of a drug for a long enough period of time can result in addiction even in people with a low genetic and environmental risk (Mayo Clinic, 2017; Kalivas & O'Brien, 2008).

### 3.4 Neurobiological Aspects

The neurobiological investigation seeks to understand the pathological aspects of addiction. Advancements in neurobiological studies reflects a greater understanding on the causation and effects of the disease. Research focuses on the rewarding, reinforcing and pleasurable effects of habit forming substances on the reward circuitry of the brain, which renders them addictive ( Gardner & David, 1999).

#### 3.4.1 The Brain Reward Circuitry

Olds and Milner (1954) were the first to implicate the medial forebrain bundle (MFB) in the reward pathway. This pathway is required for reward memory of behaviours essential for survival, such as feeding, drinking, nurturing, sexual behaviour and social interaction.

As depicted in Figure 1, the MFB involves three synaptically linked neurons. The bundle arises in the anterior bed of subcortical limbic nuclei and descends to the ventral tegmental area (VTA). This is thought to be mediated by glutamatergic neurons. The bundle then ascends to the nucleus accumbens (NAcc) via dopaminergic neurons. Sequentially, the NAcc is linked to the ventral palladium (VP) via GABAergic neurons. In Figure 1, one can appreciate at which synapse drugs of abuse activate the reward pathway, having a greater

impact than natural rewards. Other neurotransmitters, including acetylcholine, endorphins, serotonin, enkephalins and substance P, have also been implicated in the modulation of this pathway. (Gardner, 2011)

The Median Forebrain Bundle

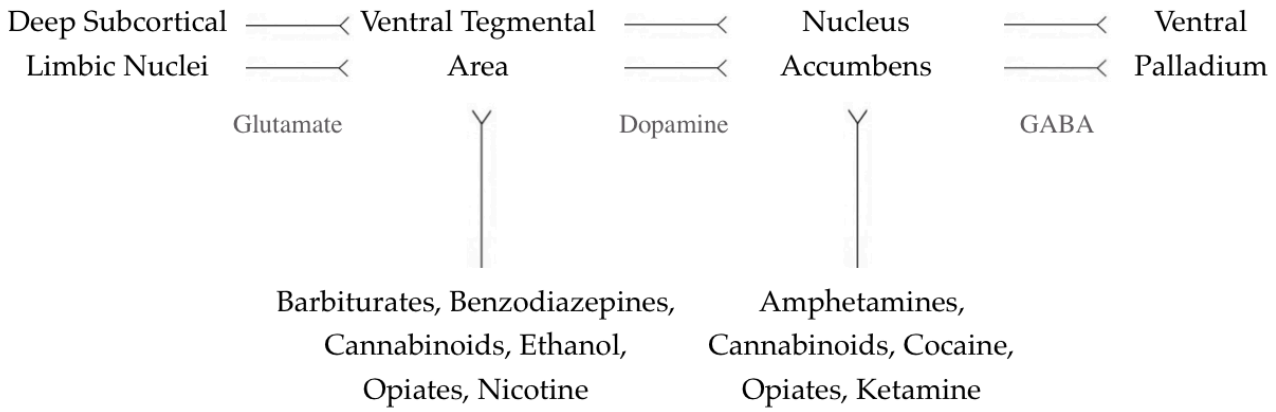


*Figure 1: Adapted from Gardner, 2011*

3.4.2 Neurobiological Hypotheses

The two main hypothesis which emerged from this neuropathological examination are the dopamine hypothesis and the reward deficiency hypothesis.

3.4.2.1 The Dopamine Hypothesis

The dopamine hypothesis proposes that the neurobiological progression described below occurs as a result of the potentiation of dopamine by the addictive substance. In fact, a crucial step in the reward pathway is the stimulation of the dopaminergic neurons between the VTA and the NAcc, as supported by the following:

- The vast majority of addictive drugs are dopamine agonists
- Intracerebral microinjections of dopamine agonists produce conditioned preference

- Dopamine antagonists are negative reinforcers, and trigger a compensatory increase in addictive drug use
- Extracellular dopamine is present in the NAcc after administration of the drug
- A decreasing level of dopamine in the NAcc predicts the next intake of the drug. (Gardner, 2011)

3.4.2.2 Reward Deficiency Hypothesis

In contrast, the reward deficiency hypothesis speculates that individuals suffering from drug addiction have a genetic or acquired deficiency in their hedonic tone. Consequently, substance misuse reflects an attempt to increase the hedonic tone via self-medication. (Comings & Blum, 2000) The three hypothesised neurobiological mechanisms are:

- a paucity of dopamine receptors D2 in the reward circuitry (Comings & Blum, 2000),
- an abnormality in dopamine receptors D3 in the reward pathway (Heidbreder et al., 2005),
- and a deficiency of presynaptic dopamine levels in the NAcc (Guitart et al., 1992).

These changes, occurring within the reward circuitry, reflect the importance of the NAcc in hedonic tone, expectancy, amount and delay of reward, reward-delay discounting, errors in reward prediction, regulation of motivation for drug-seeking behaviour, and its contribution to the neuroplasticity that underlies addictive behaviour patterns (Gardner, 2011).

The neurobiological mechanisms discussed also hinder the ability of people who have a tendency for or suffer from addiction to achieve pleasure through natural stimulants (Gardner, 2005). Hence, Gardner (2011) suggested that this inability should be addressed within a management plan for addiction.

## 3.5 The Neurobiological Progression of Addiction

Presented hereunder are the neurobiological changes which occur as one progresses from reward-driven use to substance use disorder. The current understanding is that these changes result in the signs and symptoms linked to addiction. Although this approach contrasts significantly with the existential explanation of being-with-drug, previously discussed, it is its counterpart.

### 3.5.1 Reward-Driven and Habit-Driven Substance Use

Substance misuse typically progresses from the occasional use to regular, reward-driven use. In the latter, the VTA in the reward pathway is activated to achieve pleasure. Continued substance use propels the individual towards habit-driven use. On a neurobiological level, this reflects a change in the locus of control from the ventral striatum to dorsal striatum (Everitt et al., 2008), which has been shown to be responsible for habit formation. This change is possible due to the existence of a striato-nigral-striatal loop (Robbins & Everitt, 2002) as well as the ability of the NAcc (core and shell) ability to regulate its own dopamine innervation (Haber et al., 2000).

### 3.5.2 Compulsive Use, Addiction and Dependence

Further consumption triggers compulsive driven use, characteristic of addiction, wherein the individual is motivated to continue using the substance. As noted through animal studies, dependence is not a prerequisite of addiction. In fact, the test subject would self administer the addictive substance before the symptoms of tolerance, dependence or withdrawal set in. This can be exemplified by cocaine, which is highly addictive but does not produce severe physical dependence. Other substances cause both phenomena by acting on different neurobiological loci (Bozarth & Wise, 1984).

Physical dependence is mediated by the effect of a substance on posterior brainstem loci, near the dorsal raphe nucleus and locus coeruleus (Bozarth & Wise, 1984). Interestingly, studies have shown that the analgesic effects of opiates and cannabinoids are mediated through different nuclei and their appropriate medical use should not cause addiction or dependence (Pert & Yaksh, 1974).

### 3.5.3 Tolerance and Withdrawal Symptoms

The development of tolerance is postulated to be the net result of pro-reward and anti-reward processes in the brain. Nazzaro et al. (1981) found evidence that with repeated substance use, the equilibrium shifts towards anti-reward processes as these increase whereas the pro-reward processes diminish. Consequently, the overall effect becomes progressively inhibitory, resulting in a diminished hedonic tone. This partly explains why chronic substance users need the substance to function (Gardner & David, 1999).

In the withdrawal state, the brain reward processes are inhibited provoking a hedonic withdrawal, which is separate from the physical withdrawal experienced (Kokkinidis & McCarter, 1990).

### 3.5.4 Abstinence, Craving and Relapse

Substance addiction is characterised by a high relapse rate, with around 40-60% of patients experiencing relapses after treatment (NIDA, 2014).

Drug seeking behaviour increases with time in abstinence, as demonstrated by laboratory experiments. The underlying mechanism is thought to be long-term potentiation and long-term depression in the amygdala, hippocampus and NAcc. This is believed to be precipitated by an increase in brain-derived neurotrophic factor in the reward circuitry, especially in the NAcc and amygdala. Other studies have implicated the increase of central

amygdaloid glutamate and central amygdaloid extracellular signal-regulated kinase in the mechanism.

Following detoxification the ex-substance user experiences persistent cravings (Gardner, 2011). Individuals who maintain sobriety report that they battle cravings daily.

The classical triggers for relapse are re-exposure to the substance (mediated by the dopaminergic MFB), environmental cues (brought about by two glutamatergic pathways, which originate in the ventral subiculum of the hippocampus and the basolateral complex of the amygdala) and exposure to stress (AA, 2002). Two circuits are associated with stress induced relapse. One originates in the lateral-temental noradrenergic cell group and projects to the hypothalamus, NAcc, amygdala and stria terminalis. The other projects to the stria terminalis from the central nucleus of the amygdala. The main neurotransmitters involved are norepinephrine and corticotrophin-releasing factor respectively.

# Chapter 4: Treatment Guidelines

## 4.1 Evidence for the Medical Model of Addiction

Evidence in favour of the medical model for the management of substance misuse is robust. A number of guidelines are frequently updated to allow professionals to provide evidence-based care. The pharmacological aspects of treatment are strongly associated with the neurobiological model.

### 4.1.1 Pharmacological Intervention

Prescribing in addiction follows the general principles which are widely accepted within the medical field, such as informed consent. Pharmacological intervention aims to achieve:

- reduction and prevention of withdrawal symptoms,
- stabilisation or decrease of drug intake,
- harm reduction,
- improvement in overall health status, with a decrease in psychosocial and general medical morbidity,
- reduction in mortality,
- reduction in criminal activity,
- improved social functioning,
- contact with other services (Kleber et al., 2006).

### 4.1.2 Opioid Dependence

The choice of treatment for opioid dependence should be based on patient's preference, needs, safety issues and past response to treatment, as well as the patient's history of dependence, commitment to treatment, probability of achieving and maintaining abstinence, and the physician's assessment of short- and long-term risks. (NICE, 2008; Kleber et al., 2006)

Although some patients may undergo detoxification from opioids unsupported, many others require medical intervention. A proportion of these will experience only mild symptoms which can be managed by symptomatic treatment, whilst others will require opioid substitution treatment (OST) for more severe symptomatology (Kleber et al., 2006).

#### 4.1.2.1 Symptomatic Treatment

Lofexidine is a non-opioid alpha-adrenergic agonist which can be used to alleviate the physical symptoms of withdrawal in mild or uncertain dependence. Clonidine is also used for the same indication but newer guidelines favour lofexidine in view of its cleaner side effect profile. Other medications such as loperamide, metoclopramide, mebeverine, benzodiazepines and non-opioid pain killers can be used to mitigate the effects of withdrawal.

#### 4.1.2.2 Opioid Substitution Treatment

The evidence for opioid substitution treatment (OST) is well established. Starting OST requires a diagnosis of dependence, a positive toxicology result and a comprehensive assessment to ascertain one's motivation to change. The National Institute of Clinical Excellence (2008) recommends methadone and buprenorphine, claiming that methadone should be preferentially prescribed if both drugs are deemed to be equally suitable. However, to date, there is no evidence to support one over the other.

Both options are thought to improve outcome across a range of domains by attaining the aims of pharmacological intervention discussed previously (Kleber et al., 2006). In patients who fail to achieve this, the physician should opt for optimisation of their current management plan.

Methadone is a μ-opioid receptor agonist licensed for maintenance treatment in opioid-dependent individuals. On the other hand, buprenorphine is a mixed μ-opiod partial agonist and κ-receptor antagonist effective for mild to moderate dependence.

When both methadone and buprenorphine are contraindicated or considered impractical, dihydrocodeine can be used as an alternative. There is also some evidence supporting the use of heroin-assisted treatment.

In the initiation stage, it may take an individual two to four weeks to reach a suitable dose. During this period, methadone carries a risk of death which diminishes to very low levels at around one month. This, together with its long half-life, calls for monitoring for toxicity. In comparison, with buprenorphine safe and rapid initiation is possible due to its mixed agonist-antagonist effect. Moreover, buprenorphine has the advantage that it may be prescribed every 48-96 hours.

However, it does have its limitations. Buprenorphine can only be started once the patient is in established withdrawal as, secondary to its pharmacological properties, in the presence of another opioid it can precipitate strong withdrawal symptoms. Also methadone seems to be more effective for the management of severe dependence and long term maintenance.

The average daily range of methadone dosage is 60-120mg and that of buprenorphine is 12-16mg. The objectives of treatment should not be limited to the adequate management of withdrawal symptoms, but should also minimise cravings. Furthermore, the physician must ensure that the drug level remains within the therapeutic range, to avoid intoxication.

Both methadone and buprenorphine have abuse potential and can cause death in overdose, especially when combined with alcohol, benzodiazepines and central nervous system depressant drugs. In an attempt to limit this abuse potential, a combination of

buprenorphine and naloxone exists which results in naloxone-induced withdrawal symptoms if the drug is injected. Moreover, guidelines recommend patient co-operation with the management plan, communication between the caring physician and the dispensing pharmacist, as well as a system that supervises consumption for the first three months of treatment (NICE, 2008). Supervision of methadone has resulted in a four fold reduction in deaths (Strang et al., 2010). For this reason, withholding supervision and allowing take-home methadone should only be considered following a case-by-case assessment and must be dealt with great caution.

#### 4.1.2.3 Detoxification and Abstinence

Opioid detoxification takes around twenty-eight days in an inpatient setting and up to twelve weeks on an outpatient basis. When planning detoxification, one must assess the safety of community detoxification. Inpatient detoxification should be opted for in cases of polydrug use, significant social difficulties, co-morbid physical and mental health problems and failure of previous community detoxification (Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group, 2017; NICE, 2008). Successful detoxification requires patient commitment, awareness of the risk of relapse and a stable, supportive environment with good follow-up care (Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group, 2017; NICE, 2008). Patients must be informed about the decrease in opioid tolerance that follows detoxification, with subsequent increased risk of overdose and death in cases of relapse (NICE, 2008). Hence, guidelines do not recommend ultra rapid detoxification (Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group, 2017) and/or coerced detoxification (Kleber et al., 2006).

Following detoxification, naltrexone, an opioid antagonist, can be used in motivated individuals to maintain abstinence (Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group, 2017; NICE, 2008). It should be

commenced only when the patient has been off methadone for at least seven to ten days and has been informed about the risk of overdose in relapse, as the blockade of the μ-receptors is overcome. (Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group, 2017; Kleber et al., 2006; NICE, 2008).

#### 4.1.2.4 Maintenance Treatment

Once a patient is started on OST, detoxification is not always the best option. Some patients benefit from a period of maintenance, which may be required to engage one within the services available. In other cases maintenance treatment may be needed lifelong. (Kleber et al., 2006)

#### 4.1.2.5 Medicinal Opioid Abuse

There has been an increase, especially in the United States, in the use of prescription and non-prescription opioids such as oxycodone, hydrocodone and fentanyl (CDC, 2017). It is estimated that there are five times opioid users as there are heroin users (Kleber et al., 2006). Individuals suffering from addiction to low potency opioids can be managed with buprenorphine, whilst those suffering from high potency opioid addiction should be offered buprenorphine or methadone (Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group, 2017).

#### 4.1.2.6 Opioid Overdose

Opioid overdose is a medical emergency and should thus be managed in a medical hospital. Naloxone is the antidote of choice. Patients should have close monitoring and may require intensive care treatment.

### 4.1.3 Stimulant Dependence

The mainstay of management in stimulant dependence is psychosocial intervention, as to date there is no substitution treatment available. However, symptomatic treatment may be offered for agitation, psychosis and insomnia secondary to intoxication or withdrawal (Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group, 2017; Kleber et al., 2006). Withdrawal symptoms are sometimes difficult to define and may mimic depressive symptoms (Kleber et al., 2006).

### 4.1.4 Co-morbid Opioid and Stimulant Dependence

In patients who suffer from co-morbid heroin and cocaine dependence, adequate OST may result in a decrease or cessation of cocaine use (Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group, 2017). Persistent cocaine use may respond to an increase in OST (Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group, 2017). These patients should be offered intensified counselling, contingency management and referral to specialist groups (Kleber et al., 2006).

## 4.2 Evidence for Psychosocial Interventions

Guidelines recommend the combination of pharmacological and psychosocial interventions (Kleber et al., 2006). Psychosocial interventions are aimed at bringing about change in the psychological and social domains. Social interventions address basic needs, health care provision, employment and supportive networks.

The underlying principles, common to all psychosocial interventions, include the provision of a structure for delivery of care, assessment of social networks, supervision, integration of pharmacological and psychosocial care (Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group, 2017), and assessment

of progress. This is empowered by the development of a therapeutic alliance (EMCDDA, n.d.).

To accomplish this, an assessment of the social support network available is required. This allows the therapist to rope in supportive individuals which improves engagement with services (Wanigaratne et al., 2005). Clients benefit from a change in their social network to one in which drugs are not present. Furthermore, by focusing on increasing confidence and enhancing coping skills, the individual avoids using substances as a coping mechanism.

The psychosocial intervention of choice should be determined by the client's needs and the availability of services. Highest quality evidence supports the use of contingency management and behavioural couples therapy. However, the most commonly used interventions are based on motivational interviewing (EMCDDA, n.d.). NICE (2008) recommends that motivational opportunistic brief interventions, focusing on ambivalence to behavioural change, should be offered when contact with services is limited.

The guidelines published by NICE (2008) focus solely on a decrease in substance use as a marker of benefit. In comparison, the recently published Drug Misuse and Dependence Guidelines (2017) are more comprehensive and take into consideration health and wellbeing aspects, such as quality of life, psychological health, days volunteering, improvement in family relationships, improved confidence and decreased anxiety.

#### 4.2.1 Harm Reduction Strategies

Individuals who continue to abuse substances should be educated on harm reduction strategies, such as safer injection practices and the use of drugs in the presence of others to minimise risk of overdose. Safer injection practices include the use of sterile needles, paraphernalia and water, rotation of injection sites and avoidance of infected or high risk areas, such as the neck, groin and breast. Some countries also offer needle exchange

programs wherein free needles are distributed to prevent transmission of blood borne viruses, through needle sharing.

### 4.3 Evidence for Psychotherapeutic Interventions

Psychotherapeutic interventions, especially when used in combination with pharmacological treatment, are effective in reducing substance use. Although the evidence for some approaches is more robust, there is none to suggest that any one intervention is superior for each case of substance dependence (Wanigaratne et al., 2005). Motivational interviewing and relapse prevention have been shown to be beneficial in the management of a wide range of substances, with the latter focusing on the identification and avoidance of high risk situations, and the management of cravings and relapses. On the other hand, contingency management is only effective in a subset of dependent users. (Wanigaratne et al., 2005)

#### 4.3.1 Opioid Dependence

OST combined with key working seems to offer optimal behaviour change once a good therapeutic relationship is formed. Key working involves the review of treatment plans and goals, provision of drug-related advice and information, harm reduction interventions, and interventions to increase motivation and prevent relapse.

NICE (2008) recommends the use of contingency management for people on methadone as it results in a decrease in opioid use. However the current evidence suggests that people on buprenorphine do not benefit from this approach. This intervention offers vouchers and privileges when urine tests are negative and when harm reduction strategies are followed. Family or couple based therapy is beneficial for individuals in contact with a carer (NICE, 2008). These approaches have been demonstrated to enhance treatment adherence and facilitate implementation and monitoring of contingency contracts with opioid-dependent patients (Kleber et al., 2006) Family therapy was found to be more

effective with adolescents rather than the adult population. Short term psychodynamic therapy and Cognitive Behavioural Therapy (CBT) have not been shown to decrease opioid use (NICE, 2008). However there is some evidence supporting CBT in combination with OST as client require less methadone, maintain gains for longer and use less cocaine (EMCDDA, n.d.).

Contingency management, behavioural couples therapy and family-based interventions have been recommended by NICE (2008) for people on naltrexone.

### 4.3.2 Stimulant Dependence

Psychosocial interventions were found to be effective and are the mainstay of treatment in cocaine, amphetamines and cannabis, as there is no medication based treatment available (EMCDDA, n.d.). Prize and voucher based contingency management interventions enjoy strong evidence for stimulant misuse (NICE, 2008). This approach was found to be better than relapse prevention CBT during treatment but not at follow up. However in the presence of co-morbid mental illness, the 12 step programme for cocaine was also shown to provide benefit (Kleber et al., 2006). Psychodynamic therapy was found to be ineffective to reduce cocaine use (NICE, 2008).

### 4.3.3 Polydrug Misuse

For individuals with polydrug use family intervention, community reinforcement and contingency management was found to be superior to drug counselling and 12-step approaches. NICE (2008) recommend behavioural couples therapy for those who are in contact with a non-drug-misusing carer.

### 4.3.4 Co-morbid Psychiatric Illness

The benefits of CBT in combination with drug counselling are equivalent to those of drug counselling alone or drug counselling plus supportive-expressive psychotherapy in patients with low levels of psychiatric symptoms. However, in the presence of higher degrees of psychiatric illness, supportive-expressive therapy or CBT has been shown to be much more effective than drug counselling alone (Kleber et al., 2006) Psychodynamically oriented group therapy, modified for substance-dependent patients, appears to be effective in promoting abstinence when combined with behavioural monitoring and individual supportive psychotherapy especially in individuals with high levels of psychiatric symptoms. (Kleber et al., 2006)

### 4.3.5 Narcotics Anonymous

The narcotics anonymous (NA) groups are beneficial for some individuals in providing peer support for continued participation in treatment, avoiding substance-using peers and high-risk environments, confronting denial, and intervening early in patterns of thinking and behaviour that often lead to relapse. (Kleber et al., 2006) Although it is difficulty to assess benefit of narcotic anonymous groups in view of patient anonymity (Kleber et al., 2006), there is consistent evidence of improvement with these self help groups and hence information and referral should be provided (NICE, 2008)

### 4.3.6 Residential Rehabilitation Programs

Residential programs offer intensive psychosocial intervention aimed at consolidating recovery (Kleber et al., 2006). Usually clients who enter residential programs would have progressed further in their drug career, have failed community based interventions and have problems across a wider range of psychosocial domains (NTA, 2012). Despite the high drop-out rates, this form of treatment remains viable as those who complete the program enjoy better outcomes. Most of the rehabilitation programmes are based on the

12-step approach which is a spiritual model which emphasises the medical model. The patient is positioned as powerless over the addiction and hence must rely on a greater power to improve oneself. The rigidity of the model, focus on complete abstinence and the fact that the person is labelled as a recovering addict has been criticised by proponents who emphasise freedom of choice (Beasley, 1998).

## 4.4 Criticism of Evidence in Addiction

Addiction research may include bias in view of the criteria used to render it objective and scientific. In fact Wurm (2015) notes that certain literature is more likely to be published as it is funded by pharmaceutical companies, whereas research about community interventions and lifestyle changes are under-represented. This may give the clinician the false impression on which interventions are most useful. On the contrary, service users value social interventions, addressing physical help and their issues over other interventions (Perkins, 2001) Moreover, in view of the exclusion criteria, most research are representative of white, economically stable and high-functioning individuals, which does not reflect the entire population. Furthermore, as most research published comes from Western Europe and North America, it's applicability to third world countries is limited. Finally, Wurm (2015) questions whether the effectiveness of motivational interviewing is a testament to CBT or the underlying existential principles.

## 4.5 Evidence for the Existential Model of Addiction

Further to the examples discussed while compiling the existential model of addiction, other phenomenological studies support this model. Participants describe drug use as a coping mechanism, a way to improve and achieve a sense of control in their lives. Furthermore drug use is experienced as a way to avoid emotional pain, isolation, and powerlessness. However substance misuse resulted in a feeling that one is not truly living, but it is only when secondary suffering is experienced do substance misusers consider life

without drugs. Finally, it is the transformation in a person's identity, away from the 'addict-identity', as well as a regeneration of feelings that results in recovery. (Barros, 2012)

### 4.5.1 Existential Psychotherapy

Existential psychotherapy is a dynamic approach, encompassing multiple related therapeutic approaches, which arose as a reaction to the previously ubiquitous compartmentalisation, reductionism and determinism during the 20th Century. These psychotherapeutic approaches are future oriented (Frankl, 1959), moving away from instincts, drives and the view that psychopathology occurs as a result of past experiences. Central to existential philosophy is the move towards the subjectivity of the human experience and away from an overarching truth. In his lecture 'Existentialism is a Humanism', Jean Paul Sartre coined the term 'existence precedes essence', through which we understand that human beings are not pre-determined, but it is through our choices that we determine our being. Hence an individualistic approach to truth is adopted based on the individual's experiences (May & Yalom, 2000).

Consequently, neither of these approaches are manual based system, posing difficulties to design studies to assess their efficacy. In fact, the evidence base for existential psychotherapy is limited, even more so when one limits the search to a specific subject such as addiction.

Nevertheless, a recent study by Thompson (2016), has investigated the efficacy of meaning therapy for addiction. In this case study, the author looked at the therapeutic approach as the case. Therapy was provided using principles devised by Wong's meaning centred therapy who developed his approach on Fankl's logotherapy principles. This therapy maintains that addiction results from a lack of personal meaning. According to Wong (2012), meaning therapy helps the client develop self identity, develop a determination to face life challenges, make sense of predicaments and restores purpose, faith, hope, and develops a therapeutic relationship which models as the basis for other relationships.

This meaning centred therapy was found to cause changes in the way participants interpreted addiction and recovery. In the pre-treatment phase participants saw drug as a way to self-medicate and expected the professional to provide a diagnosis and solution. The participants were unable to make sense of their addiction and could not understand why they still use drugs even when happy. Their perspective changed post-treatment as participants viewed intoxication as a response to an unfulfilled life which got in the way of authentic living. Participants noted that they were attracted to a state of intoxication as it provided purpose as well as made tasks more interesting and alive. With regards to the process of recovery the participants shifted from a stance whereby the external world is the problem which needs to change and the therapist holds the answers, to a stance wherein introspection and a process of self discovery is necessary to move towards authentic living. In fact Peter stated, 'There can't be full recovery without me paying more attention to myself" (Thompson, 2016).

Participants initially had a weak sense of self, lacked personal values and gaols, and believed that they gain from intoxication as it enhanced life and relationships and alleviated boredom. Kevin summed up the switch in attitude when he said, 'I'm understanding myself more. … I think it comes down to a purpose and meaning in life." Participants developed a positive self awareness and defined themselves more clearly. Interestingly they moved away from seeing themselves as 'different' in favour of 'unique'. Participants shifted from isolation and lack of validation to validation and a sense of being accepted while sober. Furthermore, relatives shifted from trying to control 'the addict' towards rebuilding relationships. Finally there was also a shift towards purposeful living, future orientation and asserting oneself. In fact there was also a move from extrinsic to intrinsic goals, resulting in the recognition that answers lie within.

Improvement across self definition, interpersonal relatedness and intrinsic motivation was related to abstinence, fewer life problems and a sense of purpose. Furthermore, overcoming addiction allowed for better evaluation of the self, personal values and goals,

the development of relationships and a re-connection with the world in favour of authentic living.

More studies are needed to continue to investigate the existential issues around addiction, as well as, the efficacy of existential modality as a treatment option for addiction. Since there is a growing amount of literature supporting the existential difficulties underlying addiction is encouraging for existential psychotherapists. However one needs to further investigate individual versus group therapy, short-term versus long-term duration of therapy and the long-term effects of this modality.

# Chapter 5: Discussion

## 5.1 Coping Mechanism versus Disease

The fundamental difference between the two models is the fact that the existential model views substance use as a coping mechanism, whereas the medical model describes addiction in terms of a disease.

Existential philosophy describes the existential givens, which when encountered are anxiety provoking. Within this framework substance use serves as a coping mechanism against the existential or neurotic anxiety. Phenomenological case studies delve further into the addict's experience in relation to the sense of self. Within this model, substance use cannot be separated from the individual, leading to the concept presented earlier of being-with-drug, a state in which the individual is engulfed in a relationship with the drug which takes over his/her life.

The medical model categorises addiction as a disease. Research focuses on risk and protective factors, both genetic and environmental, as well as an underlying neurobiological process. This process, described earlier, replaces the individual's experience and reduces it to a description of neurotransmitter imbalances. Furthermore, within the medical model, the disease is seen as separate from the individual and hence, does not add to this dynamic. Having said this, within the medical world there is the realisation that psychological intervention is necessary for recovery as evidenced by current guidelines.

## 5.2 Responsibility

The differences discussed above lead to differences with regards to responsibility within addiction. The existential model encourages the individual to accept the responsibility related to the choices made. Since addiction is seen as a coping mechanism, the individual

is not disowned of the ability to choose. In fact, the substance user is conceptualised as continuing to choose the substance, until abstinence is chosen, usually due to an existential crisis or hitting rock bottom.

In contrast, the risk and protective balance, put forward by the medial model, disowns the responsibility of using substance for those in whom the balance favours risk factors. Moreover, in view of the strong genetic component one may conclude that some individuals are pre-determined to develop addiction. Furthermore, addiction is maintained through neurotransmitter changes, which the individual cannot control. In view of all these points, the individual is not conceptualised as responsible for developing, or maintaining the addiction.

### 5.3 Treatment

Research supporting the medical model, has resulted in the development of medication which aids individuals remain abstinent. Unfortunately, pharmacological treatment is only available for opioid users and does not seem to reverse the neurobiological processes discussed. However, recent advancements in pharmacogenetics seem to provide insight into response to treatment depending on one's genetic makeup. This leads to greater benefit with less side effects (Patriquin et al., 2015).

Critics of the use of medication, usually from the anti-psychiatry movement, state that medications are not specific to the particular diagnosis, benefits of medications are exaggerated while adverse effects are minimised (Moncrieff & Cohen, 2005). However, adopting a radical approach against pharmacotherapy as was done by existential psychiatrist R. D. Laing at Kingsley Hall psychiatric community, in which people suffering from severe mental illness were not prescribed medication (O'Hagan, 2012), will not allow the client suffering from substance misuse to benefit from pharmacotherapy.

This radical view contrasts with guidelines for substance misuse which attempt to address addiction holistically with the inclusion of diverse methods including pharmacotherapy to help patients overcome their addiction (Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group, 2017). Even more so, as recent advancements in genetic research attempt to individualise treatment. This approach tallies with the existential approach, wherein each client is valued for his/her individuality.

### 5.3.1 Psychosocial Interventions

Despite the differences with regards to existential and medical model, whereby addiction is conceptualised in terms of philosophy and neurobiology respectively, the psychosocial domain offers an area of overlap.

The existential model recognises the psychological and social circumstances which may lead one to encounter the existential givens which, in turn, through the inability to face these concerns, addiction ensues. This parallels the risk factors discussed within the medical model but differs significantly in terms of freedom of choice and responsibility.

Furthermore both models recognise the need to address the psychosocial domain within the management plan. The medical guidelines focus heavily on psychosocial interventions. These are recommended in combination with medication for opioid use and are the mainstay of treatment for stimulant misuse. The existential model offers a framework for treatment, presented below, which addresses the physical, psychological, social and spiritual domains. Through this model, the client is encouraged within psychotherapy to address issues within the psychosocial domain.

### 5.3.2 The End-point of Treatment

In view of the separation between the self and the disease central to the medical model, medical guidelines view abstinence, being-without-drug, as the endpoint of treatment. Even the psychosocial intervention guideline put forward by the NICE adopts this view, and measures the effectiveness of the psychotherapeutic intervention against its ability to aid individuals remain drug free (NICE, 2008).

In contrast, the existential model goes beyond abstinence to address the impact addiction had on the self. It is as though abstinence does not remain the most important goal of therapy, but rather a change in the addict-identity becomes the primary role of therapy; putting the individual on a path of on-going narrative construction and reintegration with the world. This involves not only abstinence from the drug but rather a reassessment of the self and one's influences from the world, with the aim of consciously seeking authentic living.

Furthermore, combining the principles of the medical model to the existential view that addiction is a coping mechanism, reveals another flaw with viewing abstinence as the end point of treatment. If a patient's identity and coping skills have not been addressed, the individual is discharged from a service abstinent, but without the necessary skills to cope with the issues which would have driven the individual to addiction in the first place, thus setting up the individual for relapse. However, through existential psychotherapy, the patient is encouraged to identify factors which would have precipitated and perpetuated substance use and these are addressed in the process of achieving authenticity.

## 5.4 Choice versus Compulsion

Another main difference between the two models revolves around the issues of compulsion, choice, freedom and responsibility. The medical model views addiction as a compulsive behaviour, with a neurobiological shift in the brain's locus of control. This

approach mitigates the individual's freedom of choice and responsibility. This contrasts strongly with Sartre's (1965) philosophy in which he gave great importance to the issues of freedom and responsibility and links them to transcendence. Consequently from an existential point of view one would have chosen to become addicted, as this was the better option (Schaler, 2000), in an attempt to find meaning (Wurm, 2003). As a result, the addicted individual is responsible for substance use and the related behaviour, but has the freedom to deal with the addiction.

### 5.4.1 Reward-Driven Use

The use of addictive substance for recreational purposes is easily understood in terms of a choice, and in fact the neurobiological switch in the locus of control would not have occurred yet. Hence the start of addiction occurs out of choice and not compulsion.

However, both models put forward elements which help us understand that the start of the addiction career may not simply occur because the individual wanted to become addicted. As already discussed the medical model puts forward a number of factors which place the individual at an increased risk of addiction. On the other hand, phenomenological literature states that the choice to use substance made sense within the circumstances of the individual, and as such, the individual lacked a suitable alternative.

Thomas De Quincey, in his masterpiece Confessions of an English Opium Eater (1821), criticises people who have attributed his opium addiction to pleasure seeking behaviour. He claims that this occurs secondary to self-medicating for his 'irritation of the stomach' and states that at the time he 'could not have done otherwise'.

Even if one maintains that reward-driven use is a choice, I doubt that anyone will chose to be addicted, rather the choice is to partake into a rewarding experience; as exemplified by Mark's statement, 'at least we are not that stupid!' (Trainspotting, 1996).

5.4.2 Compulsion-Driven Use

The medical model maintains that the neurobiological changes perpetuate the addiction through compulsive-driven drug use, with the addict having no choice over continued drug use. The dominance of this model has resulted in less attention being given to the free-will explanation (Szasz, 2003).

The existential model, follows the free-will model and maintains that one remains in control and continues to actively make the choice to use substances (Barros, 2012) in an attempt to cope with life (West, 2006; Szasz, 2003), create meaning (Wurm, 2003) and as a way of self empowerment (Barros, 2012). The individual is seen as capable for change as exemplified through individuals who overcame their addiction on their own (Biernacki, 1986). The phenomenological monologue at the beginning of Trainspotting (1996) shows Mark's view that addiction is a choice:

> "Choose life... But why would I want to do a thing like that? I chose not to choose life. I chose somethin' else. And the reasons? There are no reasons. Who needs reasons when you've got heroin?"
>
> *Mark Renton in Trainspotting, 1996*

Although the characters continue to maintain that addiction is their choice as exemplified by, 'we made a healthy, informed, democratic decision to get back on drug', there are various scenarios when the characters are depicted as being caught up within the addictive behaviour in a compulsive way. In fact, Barros (2012) suggests that as the individual is caught in the craving withdrawal cycle, choices become limited leading to hitting rock bottom whether the only choice available is either to choose abstinence or die.

De Quincey's (1821) autobiography supports this literature. During his opium addiction he claims that he 'made attempts innumerable to reduce the quantity' of the drug which were unsuccessful, as he felt 'powerless as an infant, and cannot even attempt to rise'.

However, by the end of the novel he manages to renounce opium without any intervention. The author describes how through his addiction he felt that he seemed to 'descend, into chasms and sunless abysses, … from which it seemed hopeless that *he* could ever reascend.' De Quincey hit rock bottom, when he claimed, ' I saw that I must die if I continued the opium.' At this point, choices became limited and he was motivated to change. Hence, one can argue that the element of choice takes over the compulsive element of addiction as one hits rock bottom.

5.4.3 Presenting for Treatment

Compulsive behaviour is defined as 'repetitive behaviours or mental acts that individual feels driven to perform in response to an obsession or according to rules that must be applied rigidly' (APA, 2013, p. 235). Obsessions are understood as 'recurrent and persistent thoughts, urges, or images that are experienced as intrusive and unwanted'. Salience of drug seeking behaviour encompasses the obsessional aspect of drug use.

However, even if one maintains that compulsive behaviour underlies addiction, there still remains a striking difference between people suffering from obsessive compulsive disorder (OCD), a disorder characterised by obsessions and compulsions, and drug addiction. People with OCD presents for treatment, whereas substance users avoid seeking help or else present for treatment with the aim of re-enforcing their life script, 'You're an addict, so be addicted' (Trainspotting, 1996), by manipulating the health system. It is only when the individual hits rock bottom that treatment is sought (Biernacki, 1986). Consequently, Wurm (2003) states that by introducing choice in recovery this will influence the client's motivation to change.

Through the comparison of addiction with OCD, it is clear that the compulsive element ascribed to addiction should not hinder individuals' ability to seek treatment. Hence, one can argue that this ability remains one's choice. However, addicted individuals who believe in the disease model will maintain that they have no choice over their drug use

(Jarvinen & Andersen, 2009), which makes it difficult for the individual to accept full responsibility for change (Larkin, 2002). This, in turn, hinders the addict's ability to address the addiction (Barros, 2012).

## 5.5 The Mental Health Act in Addiction

The choice versus compulsion dilemma leads to another debate within the addiction field; whether one could enforce treatment through the use of the mental health act.

### 5.5.1 Involuntary Treatment

Involuntary admission under the Mental Health Act (2007) requires that the person suffers from a mental disorder for which an admission is required, risk to self or others is present and the condition is treatable.

Section 1 (3) of the first part of the Mental Health Act (1983) specifically excluded people dependent from substances or alcohol from being considered as mentally disordered. Consequently substance abusers could not be detained under the Mental Health Act for involuntary admission. In its revision, the categories of the definition of mental disorder were removed and hence dependence to alcohol or drugs is currently not excluded from the definition of mental disorder. This change is in line with the increasing evidence supporting the disease model of addiction.

The Australian state of New South Wales has taken this a step further with the Drug and Alcohol Treatment Act (2007). In this act the criteria for involuntary admission are applied to severe substance dependence and hence there is the appropriate legal framework for an accredited medical practitioner to admit people with substance dependence for involuntary treatment.

Consequently, we have seen that there is a tendency in various jurisdictions to view addiction as a mental disorder with the possibility of mandatory treatment increasing.

### 5.5.2 Effectiveness of Mandatory Treatment

Studies surrounding mandatory treatment usually focus on court mandated treatment. Critics of this mode of treatment bring forward issues related to free will, autonomy and the fact that people tend not to engage into a management plan they are forced into. In view of this, some patients feel coerced into treatment, despite consenting to it. In line with the medical model, the argument in favour of mandatory treatment is that the substance effects the prefrontal lobe and hence the person's decision making ability. Although sometimes used as a gateway to treatment, motivation may change during treatment and hence mandatory treatment can facilitate this change.

Success was found to be highest when the person was internally and externally motivated. However the external motivation via mandatory treatment is interpreted differently by each client. The hitting rock bottom phenomenon is a form of internal motivation as the person becomes aware of the negative effects of substance abuse. When Mark Renton was enrolled in a drug rehabilitation program via court mandated treatment he immediately relapsed resulting in an overdose, clearly showing that he was not internally motivated (Trainspotting, 1996). Also, Thomas de Quincey's motivation to overcome his opium addiction resulted from death wishes and it was enhanced by the positive effects of decreasing the substance (De Quincey, 1821).

Gerdner & Holmberg (2000) found that those who have something left to lose are more motivated that those who lost everything. The Crime and Misconduct Commission (2008) found that heavy users are more likely to have insight but this does not necessarily result in seeking voluntary treatment or benefitting more from treatment.

Results on the effectiveness of mandatory treatment are mixed and generally taken to be equivalent between voluntary and mandatory groups. A recent systematic review by Werb, D. et al. (2016) confirmed that benefit from treatment is equivalent in both groups and hence recommends the prioritisation of voluntary treatment.

Principles derived from the existential model of addiction and existential psychotherapy contradict the use of a legal framework to impose treatment. Addiction is not seen as a disease and hence will not classify for the required criteria for involuntary admission. Also, everyone is encouraged to face the existential anxiety related to the existential given on freedom. Mandatory treatment will enforce the structure one longs for to avoid the responsibility resulting from freedom. Moreover, being-in-the-world is an ongoing project, one which requires constant remodelling of one's identity, in favour of this stance. Hence, moving towards this lifelong project cannot be imposed. Furthermore, the nature of authenticity, which will be discussed below, is such that it cannot be prescribed (Pollard, 2005, p. 171). Once again needs to be sought by the individual through by the individual who strives to be true to one's self.

### 5.5.3 Substance Overdose

Without a doubt a substance overdose is a medical emergency which needs to be to be treated in a medical centre equipped with resuscitation and life support equipment. However once the acute, life saving intervention is done and the patient is stabilised, the medical and existential models differ significantly in the interpretation of the event.

The existential view of the overdose will focus more on the interpretation of the event by the client. Through this boundary experience the patient is brought face to face with the existential given of death and one faces the existential anxiety related to death. In this way the patient may be motivated to avoid substances and hence this renders the time after the overdose a safer period.

Interpreting the event through the medical model will result in an assessment of the risk related to the event and the substance use pattern and severity. If the risk is deemed severe enough, for example in view of the circumstances leading to the overdose, the patient might be detained for mandatory treatment under the Mental Health Act.

In Trainspotting (1996), Mark Renton is forced into coerced detoxification by his parents after he had an overdose. This would tally with the medical model wherein the support system and health care providers are eager to treat aggressively at this stage. However although Mark tried on many occasions to get clean, it was only after the overdose that he manages to engage with life. Forced detoxification is not supported by the current evidence and hence, I wonder whether facing his death was the reason for his abstinence.

## 5.6 Can I authentically choose a life of addiction?

Interest in the possibility of authentically choosing a mode of existence characterised by addiction arose through a quick internet search which revealed that Jean Paul Sartre, one of the existential philosophers, was addicted to alcohol and drugs.

### 5.6.1 Authenticity

For an individual to be true to one's self, one must be aware of the influences that result from our thrownness into the world. Heidegger (1996) uses this term to refer to facticity; the concrete details within which the individual exists. Sartre (1965) teaches us that the individual has the freedom to decide what meaning one gives to the constraints bestowed upon the individual through facticity.

This also includes that one is aware of the societal influences and is consciously deciding on how these factors influence the individual. If one follows society, Heidegger calls this 'living in the they', which is the inauthentic position.

Consequently, living authentically involves moving out of the 'they', a process realised through one's being-towards-death. Similarly, Sartre (1956) notes that as humans we are capable of moving beyond our facticity (in-itself) through the processes of transcendence (for-itself) which involves self awareness and reflection. One must embrace the freedom to decide and the responsibility arising from one's decisions to live for-oneself. Consequently, authenticity can be defined as being oneself in a world we are thrown into, hence embracing both the social element (they-self) and individuation (being-one's-self), summarised as being-alone-with-others. Humans live within the tension between authentic and inauthentic living, and hence, realise the ambiguity of human nature.

As humans are unable to be in-itself like objects, the process of authenticity involves self-recovery. This autonomous stance requires reflection and scrutiny of one's behaviour and self determined goals (Honneth, 1999).

Finally, living authentically also means that one maintains a stance which enables others to reach their authenticity.

### 5.6.2 Inauthenticity

Inauthentic living or bad faith is characterised by living in the 'they' and the denial of one's transcendence. Thus treating oneself and others as objects (in-itself) rather than embracing one's individuality (for-itself). Furthermore through inauthentic living one would escape from existential anxiety as one forfeits freedom and responsibility.

### 5.6.3 The Self

According to existential philosophy the self is dynamic and constantly in a process of becoming (van Deurzen & Arnold-Baker, 2005a, p. 160). Heidegger (1996) combines the concept of the self with the world in the term Dasein. Dasein translates from German as 'being-there', where 'there' is taken to refer to the world. Hence, to be human we have to

be immersed in the day-to-day world (Steiner, 1978). Heidegger introduces the term Being-in-the-world to signify that we cannot separate one's existential and worldly beings.

Two of the characteristics of Dasein are mineness and care. Mineness refers to the fact that the world is experienced on an individual level, whereas care reflects Dasein's concerns with others. Both these characteristics, as well as the fact that in existential philosophy one determines his/her values and meaning, require that we are constantly conscious. (van Deurzen & Arnold-Baker, 2005a, p. 163)

5.6.4 Can the term Being-with-Drug-in-the-World exist? Does addiction result in bad faith?

The existential definition of addiction, proposed in this thesis, is being-with-drug. Hence one's immersion in the day-to-day world is replaced by a relationship with the drug. A patient reported, 'Everything is around crack… Everything is crack' (Trujillo, 1998d).

Moreover, phenomenological research has identified that people suffering from drug dependence report a loss of their sense of self. However, being-with-drug creates a new sense of self, which contrasts with the individuality implied in the mineness of Dasein. Hence, although one continues to experience live as his/hers even when under the influence of the drug, this becomes part of the altered self, and not one's true self. This results in the identity crisis explained by Maria below:

> 'When I quit taking drugs, I had a tremendous identity crisis. 'Who am I? Because when taking drugs I was somebody. But without them, I was nothing, I didn't exist.' (Wiklund, 2008a)

Dasein's characteristic of care is directed towards others, and it is within this relationship that the self is revealed (Van Deurzen & Arnold-Baker, 2005a). However, care shown by addicted individuals is self centred; 'I just didn't care. I had no regrets, because, hey, this is about me getting high now' (Trujillo, 1998h). Furthermore, this is further exemplified

through the scene in Transporting (1996) wherein baby Dawn passes away from neglect. Mark and the other characters present cope through the use of heroin. This resonates with what another patient reported; 'Crack helps you forget everything, even your children' (Trujillo, 1998f).

This self centred approach is evident in the illegalities that one undergoes to sustain the drug addiction, as depicted in Trainspotting. Theft, fraud, prostitution and drug trafficking are all behaviours which are commonly found in drug addicts all used to procure the necessary funds to maintain their drug habit. The person is no longer influenced by the social values, norms, laws, and culture, and hence the they-self is rejected. This is not done through a conscious and philosophical process of transcendence. Rather it is an egoistic rejection resulting in the manipulation of others to satisfy the life project coined by Trujillo (2004) as the drive-to-be-high-and-free-of-cravings.

Furthermore, under the influence of drugs one is no longer fully conscious, and in the right state of mind, to actively work towards authenticity. Rather, one is lost in the project to be high with little care for seeking one's individuality within the 'they'. Consequently, although one might try to justify using drugs as part of being true to one's self, the state of addiction is not conducive towards living for-oneself and enabling others to seek authenticity for themselves.

Finally, there is a clear link between substance use and avoidance of anxiety. Authentic living involves facing our existential givens which are anxiety provoking. Consequently instead of benefiting from the anxiety as Kierkegaard (1946) would suggest, the addicted individual self-medicated to suppresses this anxiety. In so doing one fails to move towards authenticity.

In view of the above, it is evident that being-with-drug hinders a state of Dasein, which is a prerequisite for being-in-the-world and authenticity. Hence, I conclude that a state of being-with-drug results in bad faith and subsequently, a state of being-with-drug-in-the-

world cannot exist. As a consequence, although the existential model does not view addiction as a disease, it should still be addressed.

## 5.7 Framework for Treatment

Even though there are differences in how addiction is viewed, both models recommend that treatment should be provided to individuals who suffer from addiction. It is evident that one cannot address the complexities of addiction simply through one standardised solution. Kalant (2010) describes how neurobiologists have stated that a combination of neurobiology, pharmacology and psychology are all necessary. Addiction psychiatrists embrace this holistic view and base their intervention on the biopsychosocial model.

### 5.7.1 The Biopsychosocial Model

The Biopsychosocial model, based on Social Cognitive Theory, was developed by Dr. George L. Engel (1977) as a response to the prevalent biomedical model. He recognised the need to look at illness holistically and aimed to reverse the dehumanisation brought about by medicine.

This model allows for the professional to focus on the biological, psychological and social aspects of disease whether in its causation, interpretation of the disease and treatment. Addiction guidelines focus on both medical and psychosocial aspects, however in practice, doctors equate the biological aspect to the prescription of medication and refer patients to other professionals for psychosocial interventions.

### 5.7.2 The Existential Perspective

The framework of the biopsychosocial model is similar to Biswanger's basic models of existence; the Umwelt (physical dimension), the Mitwelt (social dimension) and the Eigenwelt (personal/psychological dimension). Van Deurzen contributed to Biswanger's

work by adding another mode of existence; the Uberwelt (spiritual dimension). Consequently existential psychotherapists have a model through which they can understand and work with clients.

The Umwelt refers to the relationship between our body and the environment. Tension arises between our wish to dominate over the environment in favour of security versus our unchangeable limitations of existence. By addressing this mode of existence one explores one's experience of their body and senses, physical autonomy, relationships with others, one's effort to create a comfortable surrounding, gender, procreation, and one's relation to the environment. One may understand addiction through this tension, as addiction results as a response to the limitations of our facticity. Pertinent to the field of addiction is an experience of health versus illness and our distraction towards a physical experience. Through the existential perspective one goes beyond the biological aspect prescribed by the medical model as one is not limited to illness. (van Deurzen & Arnold-Baker, 2005b)

The Miltwelt addresses refers to the emotional relationship with others and encompasses the tension between acceptance and inclusion versus rejection and isolation. Working within this mode of existence one hopes to own one's place in relation to others without dominating over others. Issues addressed include the existence of others, the expectation of dominating or being submissive, the regulation of relationships through emotions, love, trust, communication, culture and societal norms. (van Deurzen & Arnold-Baker, 2005c) Issues within this mode of existence may underlie addiction and one could be using drugs to deal with issues arising through the miltwelt. Mark Renton clearly states that when he was sober he finds it uneasy and uncomfortable to mix with his friends. Furthermore Mark was able to stay off drugs when he got a job and surrounded himself by new friends and colleagues. (Trainspotting, 1996)

The Eigenwelt refers to the person's sense of self and the acceptation of who we truly are. Tension arises between affirming ourselves or letting the world to determine our being

(authentic versus inauthentic living). Existentially exploring the Eigenwelt involves discovering what defines us. We need to gain insight into the positive and negative aspects of our personality, face the anxiety that comes from standing out as a person, and discover the boundary between asserting one's wishes and conforming with others. Existentially questioning our self will stimulate changes within our flexible identity. (van Deurzen & Arnold-Baker, 2005d)

The Uberwelt relates to the relationship with the metaphysical level of existence. In this mode of existence we attempt to make sense of the word and finding meaning. Tension arises between purpose and hope versus absurdity and despair. Working existentially we examine the worldview including our attitudes, prejudices, values and beliefs and understand how they have been programmes into us and how they effect our lives. We frequently get stuck in a particular mode of living as a result of our worldview and Hence, it is necessary to understand different world views. Through reflection one clarifies his/her personal worldview and understands how experience motivates change. Also within this dimension we gauge an ability to judge good versus bad. The existential therapist focuses on understanding the client's worldview and enables the client to reach for a personal meaning which invigorates the client's life. (van Deurzen & Arnold-Baker, 2005e)

## 5.8 The Therapeutic Relationship

The basis of the treatment framework discussed above is the therapeutic relationship, which refers to the relationship between the therapist and the client. Consistent with psychotherapeutic literature, the therapeutic alliance is the most important aspect of therapy (Horvath & Luborsky, 1993). Specific to the addiction field, this relationship serves to engage the client, provide empathy and trust, and serves to provide goal-orientation and positive reinforcement, while allowing the use of various therapeutic techniques to provide a tailor made intervention (EMCDDA, n.d.). In existential therapy, the focus of the encounter should not be on its productivity but rather on how much it was

an enriching experience (Frankl, 1973) The relationship does not serve to prescribe a cure (van Deurzen, 2002) but rather to allow the patient to examine one's self while taking responsibility for change (Corey, 2011). Nevertheless, the role of the therapist is of utmost importance and, in fact, Wampold (2001) states that 'the essence of therapy is embodied in the therapist'. The therapist uses empathy, non-blaming and non-judgemental attitude, open ended questions, motivational dialogue, good listening skills, summarising and participation in supervision to develop the therapeutic relationship Wanigaratne et al., 2005).

Within a medical model, which relies heavily on evidence, the doctor-patient relationship is given less importance as the outcome should be similar irrespective of who is providing it. Even more so, relying heavily on the prescription of medication, minimises the encounter as a therapeutic modality. Through the discussion above, it is evident that a truly holistic approach requires the doctor-patient relationship to be given importance, and to become a psychotherapeutic agent by being modelled on the therapist-client relationship.

## 5.9 Implications of the Medical Model for Existential Therapy

Despite the stark differences between the models, professionals working within an existential framework may benefit from aspects of the medical model. Clients who believe that they have no control over their addiction will ascribe to a medical model (Jarvinen & Andersen, 2009), creating a self-fulfilling prophecy (Wurm, 2003). In fact, this does not help clients remain abstinent (Davies, 2006), as this affects client's view of freedom, choice, responsibility and self-efficacy, which needs to be elicited, discussed and addressed when conducting existential psychotherapy. As a result, the patient will benefit from psychoeducation of different modalities to help the client open up to the possibility of using a different model.

The medical model contributes towards a treatment framework by considering the balance between risk and protective factors. The assessment of risk factors may also help to understand the context around which the client's situation became so unbearable that the only option was to use substances. Furthermore, through the investigation of protective factors, one might identify coping skills and support systems which the client may use to maintain abstinence.

Through a background of neurobiology, one may validate the client's difficulties through the understanding of the hypothesised underlying neurobiological changes while still emphasising that one is in control to address the addiction.

Finally, there is a growing body of evidence that OST aids patients with executive function (Liao, 2014). Thus, through the use of medical treatment the patient may be more able to engage within the therapeutic process.

## 5.10 Summary

A comparison of the existential and medical models of addiction is presented in Table 2.

**A Comparison of Models**

| | Existential Model | Medical Model |
|---|---|---|
| **Definition** | Being-with-drug:<br>a mode of existence characterised by the person's relationship with the drug | A disease of the 5 C's: characterised by *continued compulsive* drug use despite injurious *consequences*, coupled with the loss of *control* and persistent drug *craving* |
| **Viewed as** | A coping mechanism | A chronic disease with a relapsing and remitting course |
| **Self-medication** | Basis of addiction | Recognised in the context of mental illness |
| **The self** | Effect on one's self imperative | External to one's self |
| **Focuses on** | Personal experiences | Signs and symptoms |

| | Existential Model | Medical Model |
|---|---|---|
| **Understanding addiction** | A philosophical exploration of the ontological, axiological, ethical and praxeological levels | Neurobiological research which proposes hypothesis of brain changes in the reward circuitry |
| | Substance use causes isolation from the world | Signs and symptoms of substance use disorder such as salience, cravings, tolerance, and withdrawals |
| | Shift towards concern-with-drug | |
| | Drug provides safety | |
| | Addicted self leads to pseudo-authenticity | |
| | Seen as an attempt to find meaning through 'the-project-to-be-high-and-free-of-cravings' | |
| | Downward spiral of decreasing choices | Change in locus of control |
| | Client continues to choose substance use | Withdrawal symptoms and cravings leading to relapse |
| **Choice** | Addiction seen as a peron's choice | Pre-determined through genetic and risk factors |
| | Choices become limited throughout addiction until the only choice available is abstinence or death | Relapse due to re-exposure to drugs, environmental cues and exposure to stress |
| **Responsibility** | Client encouraged to take responsibility for substance use | The patient is disowned of personal responsibility |
| | Client seen as responsible and capable to commit to change | Since addiction is not conceptualised as a choice, patients are unable to accept responsibility for change. |
| **Causation factors** | Existential and neurotic anxiety resulting from encountering or avoiding the existential givens. | Risk/protective factor balance |
| **Genetics** | Anti-pre-determinism | 50% or risk |
| | Individualised approach recommended | research focusing on individualised genetic guided treatment |
| **Life transitions** | Existential crisis may act as triggers or may result in change | Recognised as protective/ risk factors |
| **Social circumstances** | Assessed in therapy to further explore clients worldview | |
| **Reward-driven use** | Self-medication; best choice available with option to stay clean unbearable | Choice to partake in rewarding behaviour |

| | Existential Model | Medical Model |
|---|---|---|
| **Perpetuation of addiction** | Client continues to choose substance | Compulsive behaviour characterised by withdrawals and cravings |
| **Craving** | Treat to one'e existence | Reason for relapse |
| **Overcoming addiction** | Existential crisis, boundary situations or secondary suffering (hitting rock bottom) | Guidelines focus on the ability of intervention to bring about abstinence |
| | Reduction in options until the only option is to be abstinent or die | |
| | Requires a process re-integration with the world (Being-in-the-world | |
| | Lifelong search for authentic living | |
| **Evidence** | Almost unavailable | Strong |
| | Quantitative evidence criticised | evidence given utmost importance |
| | Difficult to investigate in view of individualistic approach | standard approach as mostly manual based |
| | Phenomenological/ Qualitative | Quantitative |
| | Focuses on personal experience | Focuses on disease, patient experience not mentioned |
| | Intervention focused on individual | Evidence for psychosocial intervention focuses mainly on abstinence |
| **Substance Overdose** | Boundary experience which may encourage a client to choose change | Deemed high risk period which may require involuntary treatment |
| **Unaided detoxification** | Individual is capable to choose abstinence | Guidelines focus on offering supported detoxification |
| **Treatment** | Advised by both models | |
| | One cannot choose addiction as a way of life as it hinders one's being and one's quest for authenticity | Disease |
| | Treatment becomes a lifelong project | Treatment stops after abstinence achieved |
| | Psychological intervention to empower the patient to choose a life without substances | Medication available to decrease opioid use |
| | | Psychosocial interventions for stimulant use |
| | A radical approach will result in omission of medication | Guidelines advice a combination of medication and psychosocial interventions |

| | Existential Model | Medical Model |
|---|---|---|
| **Aim of Treatment** | Authentic living and being-in-the-world resulting form a change in the addict-identity | Abstinence (being-without-drug) |
| **Mandatory Treatment** | Negates person's autonomy | Accepted in view of addiction conceptualised as a disease |
| **Framework for treatment** | Van Deurzen's model of physical, social, personal and spiritual dimensions | Biopsychosocial model |
| | Both models recognise the need for a holistic approach | |
| **Physical dimension** | Philosophical and psychological exploration of existential issues within each dimension | Equated to medication |
| **Psychological dimension** | | Given importance in guidelines<br>Provided by psychologists |
| **Social dimension** | | Provided by social workers |
| **Spiritual aspect** | | Given importance in a 12 step programme |
| **Therapeutic relationship** | Agent for change | Considered secondary to intervention |
| | Value given to an enriching experience | Value seen in how effective the intervention is |

## Conclusion

After developing the existential and medical models of addiction, it is evident that by and large, they offer contrasting views of addiction, and hence, neither model fully explains addiction in its totality. Although both models are looking at the same issue, this is approached from different angles. The existential model focuses and develops phenomenological and philosophical aspects, whereas the medical model puts forward a classification system based on signs and symptoms, risk and protective factors, genetics and an underlying neurobiological explanation. By looking at addiction from these different angles, one can further understand the complexities of addiction.

I feel that conclusions made by both models seem reductionist in view of their pursuit to further develop particular aspects of addiction. In so doing each model develops more depth at the expense of incorporating contrasting views. This thesis may serve as the basis for future research of the boundary between the two models. Also, research should seek to compare and contrast other models of addiction in order to achieve a broader understanding of addiction. Furthermore, research should focus on whether the implementation of a broader or combined approach during treatment will result in better outcomes. This research would lead to the ability to match the client/patient or situation to a particular model or a particular combination of models.

From the comparison presented, I conclude that it is beneficial that professionals draw from both models when working with a patient, to address all issues that may arise during treatment. As previously alluded to, neither model will ever cover the different array of patients' or clients' presentations and by insisting on one side of a conflicting argument, one may fail to understand the person's point of view. Consequently, through the omission of existential issues in current guidelines, a broad approach is not routinely delivered and, in view of this, one cannot investigate this boundary further.

The phenomenological and existential research discussed shows that existential issues are equally relevant to addiction. The omission of existential issues might result in therapists and clinicians ignoring these important issues. Hence, I propose that the existential givens must be explored with each client. In this way, not only will the underlying issues be addressed, and hence the individual has a better chance of maintaining sobriety, but also this will help the patient move towards authentic living. If we want to treating the individual and not just the addiction we must strive to go beyond being-without-drug and towards being-in-the-world.

> ‘You treat a disease, you win, you lose. You treat a person,
> I guarantee you, you'll win, no matter what the outcome.’
>
> *Hunter Patch Adams in Patch Adams, 1998.*

## References


Alcoholics Anonymous (AA). (2002). *Alcoholics Anonymous.* 4th edition. New York: Alcoholics Anonymous World Services, Inc.

American Psychiatric Association (APA). (2013a). Substance-Related and Addictive Disorders. In *Diagnostic and Statistical Manual of Mental Disorders.* 5th edition. Arlington: American Psychiatric Association.

American Psychiatric Association (APA). (2013b). Highlights of Changes from DSM-IV-TR to DSM-5. In *Diagnostic and Statistical Manual of Mental Disorders.* 5th edition. Arlington: American Psychiatric Association.

American Psychiatric Association (APA). (2013c). Anxiety Disorders. In *Diagnostic and Statistical Manual of Mental Disorders.* 5th edition. Arlington: American Psychiatric Association.

Bammer, G. & Weekes, S. (1994). Becoming an ex-user: insights into the process and implications for treatment and policy. *Drug and Alcohol Review*, 13(3):285-292.

Barros, F. A. (2012). *An Exploration of choice in Heroin Addiction: 'An Interpretative Phenomenological Analysis of a small sample of people in recovery'.* Doctoral dissertation. London: New School of Psychotherapy and Counselling, Middlesex University.

Beasley, R. (1998). Existential Analysis of the Twelve Step Approach to Chemical Dependency. *Journal of the Society for Existential Analysis, 9(1).*

Bevilacqua, L & Goldman, D. (2009). Genes and Addictions. *Clinical Pharmacology & Therapeutics*, 85(4):359-361.

Biernacki, P. (1986). *Pathways from Heroin Addiction: Recovery Without Treatment*. Philadelphia: Temple University Press.

Binswanger, L. (1958). The existential analysis school of thought. In *Existence: A new dimension in psychiatry and psychology*. Edited by May, R., Angel, E. & Ellenberger, H. F. New York: Basic Books.

Bozarth, M. A. & Wise, R. A. (1984). Anatomically distinct opiate receptor fields mediate reward and physical dependence. *Science*, 224: 516-517.

Centers for Disease Control and Prevention (CDC). (2017). *Opioid Data Analysis.* Available from: https://www.cdc.gov/drugoverdose/data/analysis.html (Accessed on 29 August, 2017).

Chen, G. (2010). The Meaning of Suffering in Drug Addiction and Recovery from the Perspective of Existentialism, Buddhism and the 12-Step Program. *Journal of Psychoactive Drugs,* 42(3):363-375.

Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group. (2017). *Drug misuse and dependence: UK guidelines on clinical management*. London: Department of Health.

Comings, D. E. & Blum, K. (2000). Reward deficiency syndrome: genetic aspects of behavioral disorders. *Progress in Brain Research*, 126: 325-341.

Corey, G. (2011). *Theory and Practice of Counselling and Psychotherapy*. 9th edition. Mason: Cengage Learning, Inc.

Crist, R. C., Clarke, T. K., Ang, A., Ambrose-Lanci, L. M., Lohoff, F. W., Saxon, A. J., Ling, W., Hillhouse, M. P., Bruce, R. D., Woddy G. & Berrettini W. H. (2013). An intronic variant

in OPRD1 predicts treatment outcome for opioid dependence in African-Americans. *Neuropsychopharmacology*, 38(10):2003-2010.

Cubells, J. F., Kranzler, H. R., McCance-Katz, E., Anderson, G. M., Malison, R. T., Price, L. H. & Gelemter, J. (2000). A haplotype at the DBH locus, associated with low plasma dopamine beta- hydroxylase activity, also associates with cocaine-induced paranoia. *Molecular Psychiatry*, 5(1):56-63.

Davies, J. (2006). *The myth of addiction*. 2nd edition. New York: Routledge.

de Leon, J., Armstrong, S. C. & Cozza, K. L. (2006). Clinical guidelines for psychiatrists for the use of pharmacogenetic testing for CYP450 and CYP450 2C19. *Psychosomatics,* 47:75-85.

Demers, C. H., Bogdan, R. & Agrawal, A. (2014). The Genetics, Neurogenetics and Pharacogenetics of Addiction. *Current Behavioural Neuroscience Reports*, 1(1):33-44.

De Quincey, T. (1821). Confessions of an English Opium Eater. Available from: iBooks Library. [24 May 2017].

*Drug and Alcohol Treatment Act.* (2007). Number 7 of New South Wales Legislation. New South Wales, Australia. Available from: http://www5.austlii.edu.au/au/legis/nsw/num_act/daata2007n7276.pdf (Accessed on 6 October 2017).

Edwards, G. and Gross, M. M. (1976). Alcohol dependence: provisional description of a clinical syndrome. *British Medical Journal,* 1:1058-1061.

Engel, G. L. (1977). The need for a new medical model: a challenge for biomedicine. *Science*. 196(4286): 129-136.

European Monitoring Centre for Drug and Drug Addiction (EMCDDA). (n.d.). Psychological Therapy and Psychosocial interventions in the Treatment of Substance Misuse. Available from: http://www.emcdda.europa.eu/attachements.cfm/att_231378_EN_UK22_psychosocial.pdf (Accessed on 23 September 2017).

Everitt, B. J., Belin, D., Economidou, D., Pelloux, Y., Dalley, J. W. & Robbins, T. W. (2008). Neural mechanisms underlying the vulnerability to develop compulsive drug-seeking habits and addiction. *Philosophical Transactions of the Royal Society B*, 363: 3125-3135.

Evstigneeva, E. (2015). *Opioid Drug Addiction and the Fundamental Existential Motivations*. Congress proceedings of the 1st World Congress for Existential Psychotherapy held in London. Conducted by the New School of Psychotherapy and Counselling. London: New School of Psychotherapy and Counselling.

Frankl, V. E. (1959). *Man's Search for Meaning*. Part One translated from the German by Lasch, I. New York: Beacon Press. (Original work published in 1946).

Frankl, V. E. (1973). The Doctor and the Soul: from psychotherapy to logotherapy. Translated from the Austrian by Winston, R. & Winston, C. New York: Vintage Books. (Original work published in 1946)

Gardner, E. L. (2005). Brain reward mechanisms. In *Substance Abuse: A Comprehensive Textbook*. 4th edition. Edited by Lowinson, J.H., Ruiz, P., Millman, R. B. & Langrod, J. G. Philadelphia: Lippincott Williams & Wilkins.

Gardner, E. L. (2011). Introduction: Addiction and Brain Reward and Anti-Reward Pathways. *Advances in Psychosomatic Medicine*, 30:22-60.

Gardner, E. L. & David, J. (1999). The neurobiology of chemical addiction. In *Getting Hooked: Rationality and the Addictions*. Edited by Elster, J. & Skog, O-J. Cambridge: Cambridge University Press.

Gerdner, A. & Holmberg, A. (2000). Factors affecting motivation to treatment in severely dependent alcoholics. *Journal of Studies on Alcohol*, 61: 548–60.

Goldman, D., Oroszi, G. & Ducci, F. (2005). The genetics of addiction: uncovering the genes. *Nature Reviews Genetics*, 6:521-532.

Guitart, X., Beitner-Johnson, D., Marby, D. W,. Kosten, T. A. & Nestler, E. J. (1992). Fischer and Lewis rat strains differ in basal levels of neurofilament proteins and their regulation by chronic morphine in the mesolimbic dopamine system. *Synapse,* 12: 242-253.

Haber, S. N., Fudge, J. L. & McFarland, N. R. (2000). Striatonigrostriatal pathways in primates form an ascending spiral from the shell to the dorsolateral striatum. *Journal of Neuroscience*, 20: 2369–2382.

Haile, C. N., Kosten, T. R. & Kosten, T. A. (2009). Pharmacogenetic treatments for drug addiction: Cocaine, amphetamine and methamphetamine. *The American journal of drug and alcohol abuse,*35:161–177.

Hicks, B. M., Johnson, W., Durbin, E., Blonigen, D. M., Iacono, W. G. & McGue, M. (2013). Gene-Environment Correlation in the Development of Adolescent Substance Abuse: Selection Effects of Child Personality and Mediation via Contextual Risk Factors. *Development and Psychopathology,* 25(1):119-132.

Heidbreder, C. A., Gardner, E. L., Xi, Z-X., Thanos, P. K., Mugnaini, M., Hagan, J. J. & Ashby, Cr. Jr. (2005). The role of central dopamine $D_3$ receptors in drug addiction: a review of pharmacological evidence. *Brain Research Reviews*, 49: 77–105.

Heidegger, M. (1996). *Being and Time*. Translated from the German by Stambaugh, J. New York: State University of New York Press. (Original work published in 1927).

Honneth, A. (1999). Pathologies of the social: The past and present of social philosophy. In *Handbook of Critical Theory.* Edited by Rasmussen, D. M. Oxford: Blackwell Publishers.

Horvath, A. O. & Luborsky, L. (1993). The role of the therapeutic alliance in psychotherapy. *Journal of Consulting and Clinical Psychology,* 6J(4): 561-573.

Ip, R. (2008). Mandatory treatment and perceptions of treatment effectiveness. *Research & Issues Paper Series.* Brisbane: Crime and Misconduct Commission.

Jarvinen, M. & Andersen, D. (2009). The Making of the Chronic Addict. *Substance Use and Misuse*, 44(6): 865-885.

Jones-Smith, E. (2012). *Theories of Counselling and Psychotherapy: An Integrative Approach*. London: Sage Publications.

Kalant, H. (2010). What neurobiology cannot tell us about addiction. *Addiction*, 105(5): 780-789.

Kalivas, P. W. & O'Brien, C. (2008). Drug addiction as a pathology of staged neuroplasticity. *Neuropsychopharmacology*, 33:166-180.

Kemp, R. (2009a). The Lived-Body of Drug Addiction. *Jounral of the Society for Existential Analysis,* 20(1):120–132.

Kemp, R. (2009b). The Temporal Dimension of Addiction. J*ournal of Phenomenological Psychology* 40:1-18.

Khantzian, E.J. (1985). The self-medication hypothesis of addictive disorders: focus on heroin and cocaine dependence. *The American Journal of Psychiatry*, 142(11):1259-1264.

Kierkegaard, S. (1946). *The concept of dread*. Translated from the Danish by Lowrie, W. New Jersey: Princeton University Press. (Original work published in 1844).

Kleber, H. D., Anton, R. F. Jr., George, T. P., Greenfield, S. F., O'Brien, C. P., Rounsaville, B. J., Strain, E. C., Ziedonis, D. M., Hennessy, G. & Smith Connery, H. (2006). *Practice Guideline for the Treatment of Patients with Substance Use Disorders.* 2nd edition. Arlington: American Psychiatric Association.

Kokkinidis, L. & McCarter, B. D. (1990) Postcocaine depression and sensitization of brain-stimulation reward: analysis of reinforcement and performance effects. *Pharmacology Biochemistry and Behavior*, 36: 463-471.

Kosten, T., Domingo, C, Orson, F. & Kinsey, B. (2014). Vaccines against stimulants: cocaine and MA. *The Journal of Clinical Pharmacology*, 77(2):368-374.

Larkin, M. (2002). *Understandings and Experiences: a post-constructionist cultural psychology of addiction and recovery in the 12-Step tradition*. Doctoral dissertation. Nottingham: Nottingham Trent University.

Liao, D-L., Huang, C-Y., Hu, S., Fang, S-C., Wu, C-S., Chen, W-T., L, T. S-H., Chen, P-C. & Li, C-S. R. (11 April 2014). Cognitive Control in Opioid Dependence and Methadone Maintenance Treatment. *PLoS ONE.* 9(4): e94589. Available at: https://doi.org/10.1371/journal.pone.0094589 (Accessed on 2 December 2017).

Malenka, R. C., Nestler, E. J., Hyman, S. E. & Holtzman, D. M. (2015). Reinforcement and Addictive Disorders. Chapter 16 in *Molecular Neuropharmacology: A Foundation for Clinical Neuroscience*. 3rd Edition. New York: McGraw-Hill Medical.

Mayo Clinic. (2017). *Drug addiction (substance use disorder)*. Available from: https://www.mayoclinic.org/diseases-conditions/drug-addiction/symptoms-causes/syc-20365112 (Accessed 15 August 2017).

May, R. (1975). *The Courage to Create*. New York: W.W. Norton & Company, Inc.

May, R. (1977). *The Meaning of Anxiety.* 1st revised edition. New York: W.W. Norton & Company, Inc.

May, R., & Yalom, I. (2000). Existential psychotherapy. In *Current psychotherapies.* 6th edition. Edited by Corsini, R. J. & Wedding, D. Itasca: Peacock Publishers.

*Mental Health Act.* (1983). Chapter 20 of UK Legislation. United Kingdom. Available from: http://www.legislation.gov.uk/ukpga/1983/20/pdfs/ukpga_19830020_en.pdf (Accessed on 6 October 2017).

*Mental Health Act.* (2007). Chapter 12 of UK Legislation. United Kingdom. Available from: http://www.legislation.gov.uk/ukpga/2007/12/pdfs/ukpga_20070012_en.pdf (Accessed on 6 October 2017).

Merriam-Webster.com. (2017). *addiction*. Available from: https://www.merriam-webster.com/dictionary/addiction (Accessed on 3 June 2017).

Moncrieff, J. & Cohen, D. (2005). Rethinking Models of Psychotropic Drug Action. *Psychotherapy and Psychosomatics,* 74:145-153.

Mordey, A. (2015). *What are the Risk Factors for Alcohol and Drug Addictions?* Available from: https://www.thecabinchiangmai.com/wp-content/uploads/2016/04/Risk-Factors-for-Drug-Addiction.pdf (Accessed 15 August 2017).

National Institute for Health and Clinical Excellence (NICE). (2008). *Drug Misuse - Psychosocial Interventions*. London: Alden Press.

National Institute on Drug Abuse (NIDA). (2003). *Preventing Drug Use among Children and Adolescents: A Research-Based Guide for Parents, Educators, and Community Leaders*. 2nd Edition. Maryland: National Institute on Drug Abuse.

National Institute on Drug Abuse (NIDA). (2010). *Comobidity: Addiction and Other Mental Illnesses*. Research Report Series. Maryland: National Institute on Drug Abuse.

National Institute on Drug Abuse (NIDA). (2014). *Drugs, Brains, and Behavior: The Science of Addiction*. Available from: https://www.drugabuse.gov/publications/drugs-brains-behavior-science-addiction (Accessed on 5 September).

National Treatment Agency for Substance Misuse (NTA). (2012). The Role of Residential Rehab in an Integrated Drug Treatment System. Available from: http://www.drugsandalcohol.ie/18195/1/The_role_of_residential_rehab_in_an_integrated_drug_treatment_system.pdf (Accessed on 12 December 2017).

Nazzaro, J. M., Seeger, T. F. & Gardner, E. L. (1981). Morphine differentially affects ventral tegmental and substantia nigra brain reward thresholds. *Pharmacology Biochemistry and* Behavior, 14: 325-331.

Nestler, E. J. (2013a). Cellular basis of memory for addiction. *Dialogues in Clinical Neuroscience,* 15(4):431-443.

Nestler, E. J. (2013b). Epigenetic mechanisms of drug addiction. *Neuropharmacology*, 76(B): 259-268.

Nietzsche, F. (1973). *Beyond Good and Evil: Prelude to a Philosophy of the Future*. Translated from the German by Hollingdale, R. J. Harmondsworth: Penguin. (Original work published in 1886)

Nwakeze, P. C., Magura, S. & Rosenblum, A. (2002). Drug problem recognition, desire for help, and treatment readiness in a soup kitchen population. *Substance Use & Misuse,* 37:291-312.

O'Brien, C. P., & Gardner, E. L. (2005). Critical assessment of how to study addiction and its treatment: human and non-human animal models. *Pharmacology & Therapeutics*, 108:18-58.

O'Hagan, S. (2012). *Kingsley Hall: RD Laing's experiment in anti-psychiatry*. Available from: https://www.theguardian.com/books/2012/sep/02/rd-laing-mental-health-sanity (Accessed on 25 November 2017).

Olds, J. & Milner, P. (1954). Positive reinforcement produced by electrical stimulation of septal area and other regions of rat brain. *Journal of Comparative Psychology,* 47:419-427.

Oxford English Dictionary. (2017). *addiction*. Available from: https://en.oxforddictionaries.com/definition/addiction (Accessed on 3 June 2017).

*Patch Adams*. (1998). (Film). Directed by Tom Shadyac. United States: Universal Pictures.

Patriquin, M. A., Bauer, I. E., Soares, J. C., Graham, D. P. & Nielsen, D. A. (2015). Addiction pharmacogenetics: A systematic review of the genetic variation of the dopaminergic system. *Psychiatric Genetics,* 25(5): 181-193.

Perkins, R. (2001). What constitutes success? *British Journal of Psychiatry*, 179: 9-10.

Pert, A. & Yaksh, T. (1974). Sites of morphine induced analgesia in the primate brain: relation to pain pathways. *Brain Research*, 80: 135-140.

Pollard, J. (2005). Authenticity and Inauthenticity. Chapter 19 in *Existential Perspectives on Human Issues*. Edited by van Deurzen, E. & Arnold-Baker, C. Hampshire: Palgrave MacMillan.

Robbins, T. W. & Everitt, B. J. (2002). Limbic-striatal memory systems and drug addiction. *Neurobiology of Learning and Memory*, 78: 625–636.

Sartre, J. P. (1956). *Being and Nothingness*. Translated from the French by Barnes, H. New York: Philosophical Library. (Original work published in 1943)

Schaler, J. (2000). *Addiction is a choice*. Chicago: Open Court Publishing Co.

Semple, D. & Smyth, R. (2013). Substance Misuse. Chapter 15 in *Oxford Handbook of Psychiatry.* 3rd edition. Oxford: Oxford University Press.

Speck, P. A. (2005). The evidence base for spiritual care. *Nursing Management* 12:28-31.

Steiner, G. (1978). *Martin Heidegger*. Chicago: The University of Chicago Press.

Strang, J., Hall, W., Hickman, M. & Bird, S. M. (2010). Impact of supervision of methadone consumption on deaths related to methadone overdose (1993-2008): analyses using OD4 index in England and Scotland. *British Medical Journal*, 341: c4851.

Szasz, T. (2003). *Ceremonial Chemistry: The Ritual Persecution of Drugs, Addicts, and Pushers.* Revised Edition. USA: Syracuse University Press.

Thompson, G. R. (2016). Meaning Therapy for Addictions: A Case Study. *Journal of Humanistic Psychology,* 1–27.

Tillich, P. (1952). *The Courage to Be.* New York: Vail-Ballou Press, Inc.

*Trainspotting.* (1996). (Film). Directed by Danny Boyle. United Kingdom: Channel Four Films.

Trujillo, J. (1997a). *Interview 2: Rachel*. Miami.

Trujillo, J. (1998a). *Interview 3: Grace*. Miami.

Trujillo, J. (1998b). *Interview 39: Daisy*. Miami.

Trujillo, J. (1998c). *Interview 36: Henry*. Miami.

Trujillo, J. (1998d). *Interview 49: Laura*. Miami.

Trujillo, J. (1998e). *Interview 10: Stephanie*. Miami.

Trujillo, J. (1998f). *Interview 27: Nancy*. Miami.

Trujillo, J. (1998g). *Interview 8: Robert*. Miami.

Trujillo, J. (1998h). *Interview 33: David*. Miami.

Trujillo, J. (2004). *An Existential-Phenomenology of Crack Cocaine Abuse*. Janus Head, 7(1), 167-187

van Deurzen, E. (2002). *Existential counselling and psychotherapy in practice*. London: Sage Publications Ltd.

van Deurzen, E. & Arnold-Baker, C. (2005a). The Self. Chapter 18 in *Existential Perspectives on Human Issues*. Edited by van Deurzen, E. & Arnold-Baker, C. Hampshire: Palgrave MacMillan.

van Deurzen, E. & Arnold-Baker, C. (2005b). Introduction to the Physical Dimension. Chapter 3 in *Existential Perspectives on Human Issues*. Edited by van Deurzen, E. & Arnold-Baker, C. Hampshire: Palgrave MacMillan.

van Deurzen, E. & Arnold-Baker, C. (2005c). Introduction to the Social Dimension. Chapter 10 in *Existential Perspectives on Human Issues*. Edited by van Deurzen, E. & Arnold-Baker, C. Hampshire: Palgrave MacMillan.

van Deurzen, E. & Arnold-Baker, C. (2005d). Introduction to the Personal Dimension. Chapter 17 in *Existential Perspectives on Human Issues*. Edited by van Deurzen, E. & Arnold-Baker, C. Hampshire: Palgrave MacMillan.

van Deurzen, E. & Arnold-Baker, C. (2005e). Introduction to the Spiritual Dimension. Chapter 24 in *Existential Perspectives on Human Issues*. Edited by van Deurzen, E. & Arnold-Baker, C. Hampshire: Palgrave MacMillan.

van Zyl, J. I. (2007). *The Meaning of Heroin Addiction: a Phenomenological Study*. Masters dissertation. Pretoria: University of South Africa.

Walters, G. D. (1999). *The Addiction Concept: Working Hypothesis or Self-Fulfilling Prophesy?* Needham Heights, MA: Allen & Bacon.

Wampold, B. E. (2001). The Great Psychotherapy Debate: Models, Methods and Findings. Oxon: Routledge.

Wanigaratne, S., Davis, P., Pryce, K. & Brotchie, J. (2005). *The effectiveness of psychological therapies on drug misusing clients*. London: National Treatment Agency.

Werb, D., Kamarulzaman, A., Meacham, M. C., Rafful, C., Fisher, B., Strathdee, S. A. & Wood, E. (2016). The Effectiveness of Compulsory Drug Treatment: A Systemic Review. *International Journal of Drug Policy,* 28: 1-9.

West, R. (2006). *Theory of Addiction*. Oxford: Wiley-Blackwell.

Wiklund, L. (2008a). Existential aspects of living with addiction - Part I: meeting challenges. *Journal of Clinical Nursing,* 17:2426–2434.

Wiklund, L. (2008b). Existential aspects of living with addiction - Part II: caring needs. A hermeneutic expansion of qualitative findings. *Journal of Clinical Nursing,* 17:2435–2443.

Wong, P. T. P. (2012). From logotherapy to meaning-centered counseling and therapy. In *The human quest for meaning: Theories, research, and applications.* 2nd edition. Edited by Wong, P. T. P. New York: Routledge.

World Health Organisation (WHO). (1946). *Constitution of the World Health Organisation*. Geneva: World Health Organisation.

World Health Organisation (WHO). (1992). Mental and behavioural disorders. Chapter V in *The ICD-10 Classification of Mental and Behavioural Disorders: Clinical Descriptions and Diagnostic* Guidelines. Geneva: World Health Organisation.

Wurm, C. (2003). Is Addiction a Useful Concept? An Existential View. *European Psychotherapy*, 4(1):153-160.

Wurm, C. (2015). *Evidence and Existentialism in Addiction*. Available from: https://www.researchgate.netpublication265263431_EVIDENCE_AND_EXISTENTIALISM_IN_ADDICTIONenrichId=rgreq-1d40dea498a72362fe81b640f8a085b4XXX&enrichSource=Y292ZXJQYWdlOzI2NTI2MzQzMTBUzoyODk2NjA1MjY5NzI5MzVAMTQ0NjA3MTg1OTc2OQ%3D%3D&el=1_x_2&_esc=publicaionCoverPdf (Accessed on 13 November 2017).

Yalom, I. D. (1980). Existential Psychotherapy. New York: Basic Books.

Zafirides, P. (2013).Psychotherapy and the Restoration of Meaning: Existential Philosophy in Clinical Practice. In *The Psychology of Meaning*. Edited by Markman, K. D., Proulx, T. & Lindberg, M. J. Washington DC: American Psychological Association Press.