The effectiveness of therapeutic communities in the treatment of addicts with antisocial personality disorder: A critical review of the literature

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A dissertation submitted to Auckland University of Technology in partial fulfilment of the requirements for the degree of Master of Health Science in Psychotherapy 2014

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Attestation of authorship

I hereby declare that this submission is my own work and that to the best of my knowledge and belief it contains no material previously published or written by another person nor material, which to a substantial extent, has been accepted for the qualification of any other degree or diploma of a university or institution of higher learning, except when acknowledgement is made in the acknowledgements.

Be

Signed: Mohan Herath

Date: 03 June 2015

Acknowledgements

I would like to express my gratitude to my lecturer John O'Connor and Stephen Appel my supervisor for the useful comments, remarks and engagement through the learning process of this masters dissertation. John introduced me to the topic and gave me the confidence to begin the research. Steve then took over and provided the necessary expertise, compassion and support, which was instrumental in enabling me to complete this project. Jonathan Fay also provided invaluable constructive criticism and friendly advice during the project work. Thank you to Leanne Meikle-Bevan for being understanding and extremely helpful. I am also truly thankful to Jyoti, Karen and Jo for giving me helpful suggestions. Beverley Lang I am sincerely grateful for your support, encouragement and editing assistance, in finishing this dissertation. Most importantly, I would like to thank my wife Amy. Her support, encouragement, quiet patience and unwavering love were undeniably the bedrock upon which the past few months of my life have been built. In addition, I would like to thank Higher Ground Drug Rehabilitation Trust for the opportunity to contribute to and learn from an effective and innovative therapeutic community. I would like to also acknowledge Higher Ground management and my colleagues for graciously tolerating my anxiety and absences while continually encouraging me to complete this project.

Above all, I praise Christ my Lord for providing me this opportunity and granting me the capability to proceed successfully.

"I will love You, O Lord, my strength.

The Lord is my rock and my fortress and my deliverer;

My God, my strength, in whom I will trust;

My shield and the horn of my salvation, my stronghold.

I will call upon the Lord, who is worthy to be praised."

Psalm 18:1-3

Abstract

This dissertation explores the links between antisocial personality disorder (ASPD) and addictions, and the usefulness of treatment through modified therapeutic communities (TCs). It critically reviews and synthesises the literature in the areas of ASPD, addicts with ASPD, and TCs treating addictions. The review identifies a number of themes emerging from the literature; similarities in the behaviour of individuals with ASPD and addicts, difficulties in diagnosing ASPD, gender differences, difficulties of treating co-occurring disorders, and the effectiveness of particular treatment options including therapeutic communities. The review concludes with a number of guidelines for clinicians, which include important structures and modalities to be considered in the treatment of addicts with ASPD in therapeutic community settings.

List of Abbreviations

Mental health terms		Treatment approaches	
AOD	Alcohol and other drugs	CBT	Cognitive behaviour
ASPD	Antisocial personality		therapy
	disorder	MBT	Mentalisation-based
BPD	Borderline personality		treatment
	disorder	MRT	Moral reconation therapy
CD	Conduct disorder	SASB	Structural analysis of social
EF	Executive functioning		behaviour
MM	Methadone maintenance	TAU	Treatment as usual
PD	Personality disorder	TC	Therapeutic community
SMR	Standardised mortality rate		
SUD	Substance use disorder	Publications	
IPV	Intimate partner violence	DSM	Diagnostic and Statistical
Assessment tools			Manual of mental disorders
GNG	Go/no-go	ICD	International Classification
IPDE	International Personality		of Diseases
	Disorder Examination		
LMT	Letter Memory Test	Organisation	ns
MCMI	Millon Clinical Multi-axial	NGO	Non-governmental
	Inventory		organization
PCR-R	Psychopathy Checklist	AA	Alcoholics Anonymous
	Revised	NA	Narcotics Anonymous
TOW	Tower of London Test	NICE	National Institute for Health
WAIS	Wechsler Adult Intelligence		and Clinical Excellence
	Scale	APA	American Psychiatric
RCT	Randomised controlled trial		Association
WCST	Wisconsin Card Sorting		
	Test		

Chapter 1

This critical literature review explores the effectiveness of therapeutic communities (TCs) in the treatment of addicts with antisocial personality disorder (ASPD). Firstly, I review studies on therapeutic communities as a context for the treatment of addiction. Next, I explore the literature on ASPD to find out what treatments have been shown to be effective, and a number of studies where ASPD individuals were treated in the context of a therapeutic community. Finally, I synthesise and discuss the findings of the literature review, and suggest clinical guidelines for practitioners. I also note future research directions that emerged from this review.

The review singles out three modalities in the treatment of addicts with ASPD that were found to improve outcomes, and shows how these modalities could be applied to the context of therapeutic communities. The chapters on therapeutic communities and addiction, antisocial personality disorder and the co-occurrence of addiction and antisocial personality disorder will lay the groundwork for the findings which recommend that TCs for addicts be restructured to include modalities that are effective for ASPD, thereby providing a more effective treatment approach.

There are three types of TCs that emerged in the literature: democratic, hierarchical and concept TCs. This review focuses on hierarchical TCs as, compared with the other types, hierarchical structures have been shown to be the most effective in the treatment of addicts (De Leon, 2000; 2010). Most of the literature that was found on the treatment of ASPD and addiction comes from prison-based TCs and most of the theoretical findings come from hospital-based TCs. Only a minimal amount of research was available on community-based TCs, because ASPD individuals generally do not volunteer for treatment.

This review follows Aveyard's requirements for a rigorous, repeatable literature review (2010). It has clear exclusion/inclusion criteria, search strategies, and approaches to undertaking a critique of the literature. As no other studies were found in the literature combining the three modalities of Structural Analysis of Social Behaviour (SASB), Moral Reconation Therapy (MRT) and Mentalisation-based Treatment (MBT) in the context of therapeutic communities, to treat the dual diagnosis of ASPD and addiction, this literature review adds new insights to the field. It indicates new possibilities for treatment for addicts with ASPD.

Definitions of disorders from the Diagnostic and Statistical Manual of Mental Disorders IV (American Psychiatric Association, 1994) are used as the review began before the DSM-V was published. The DSM system is the main classification system used in New

Zealand to provide diagnoses within the addiction treatment sector (Raki, 2012). Most of the articles extracted from the literature referred to the DSM-III-R or earlier.

The following terms are understood in this study by the definitions given: *Substance abuse*: "maladaptive pattern of substance use manifested by recurrent and significant adverse consequences related to the repeated use of substances" (American Psychiatric Association, 2000, p. 198).

Substance dependence: This is a more severe condition, in which an individual has developed a tolerance to a substance which has resulted in them requiring increasing amounts in order to get the 'high' they crave. They are fixated on locating and using their substance of choice without thought of the psychological or physical effects it has on them or those around them (Sacks, Chandler, & Gonzales, 2008).

Antisocial Personality Disorder: "A pervasive pattern of disregard for and the violation of the rights of others occurring since the age of 15 years", with three or more of a list of anti-social behaviours (American Psychiatric Association, 2000, p. 649).

Addiction: "Severe problems related to compulsive and habitual use of substances" (American Psychiatric Association, 2000, p. 485).

I have used the terms 'substance dependence' and 'substance abuse' interchangeably in this dissertation, as most literature does not make a clear distinction between the two. The terms 'comorbid', 'co-occurring' and 'co-existing' are also interchangeable and are used in accordance with the terminology utilised by the studies under discussion. The terms 'resident', 'patient' and 'client' are also used interchangeably in referring to those who live in therapeutic communities. The first person is used as recommended by Aveyard (2010) for the purpose of bringing clarity and directness to the synthesis of studies conducted by a large number of researchers. Referencing follows the APA (6th Edition) style.

History of Addiction and Substance Use in New Zealand: Prevalence, Effects and Treatment

Addiction is a key public health and justice issue in New Zealand as it results in relational harm to family and friends, the loss of work and productivity, loss of finances, injuries, disease, crime and death (Ministry of Health, 2009; Peters, 2010). The National Committee for Addiction Treatment reported that around 150,000 New Zealanders – approximately 3.5% of the population - suffer from serious alcohol and drug addictions (2011). They estimate that 2.5% of the adult population use methamphetamines and 29% of the population consumes alcohol to the extent that there is a resultant harm to themselves or their families. Oakley Browne, Wells and Scott (2006) state that approximately 2.6% of the

New Zealand population could be diagnosed with alcohol abuse, approximately 1.3% with alcohol dependence, 1.2% of the population could be diagnosed with drug abuse, and 0.7% with drug dependence. From 2010 to 2011, 34,000 individuals received treatment for addiction through District Health Board funded sources and \$120 million per year is allocated in the health budget for alcohol and drug treatment.

From the report compiled by Wilkins, Sweetsur, Smart, Warne and Jawalkar (2012) on recent illegal drug use trends from 2006-2011, the amount, type and frequency of drug use appears to have increased over the years. Drug users are making use of more ambulance services and unemployment or sickness benefits. Violent crimes committed by drug users, and related arrests, have increased. Approximately 20% of all drug users stated they needed help and wanted help but felt in the last six months they had not received the help they needed. Depending on the type of drug used, 9%-69% had been in treatment before (Quigley, 2013). Furthermore according to Brooking (2009) 80-90% of criminal offenders in New Zealand have drug and alcohol issues – with few options for effective treatment.

According to The National Committee of Addiction Treatment alcohol and drug abuse is one of the highest contributors to the encumbrance of disease in New Zealand. The need for effective addiction treatment is paramount and there is a big push for more funding for addiction treatment and prevention (Brooking, 2009; National Committee of Addiction Treatment Secretariat, 2011; Peters, 2010).

In New Zealand there are four main treatment modalities – outpatient counselling, methadone maintenance, detoxification and residential treatment (Porter, 2013). According to Peters (2010) 90% of New Zealanders with mental health and alcohol or other drug addictions are provided services within the community sector. Community sector agencies and community residential treatments have been reported to be highly effective and able to respond and diversify the care they provide. They have standards of accountability and work to maintain best practice policies and constantly improve the care they provide (National Committee for Addiction Treatment Secretariat, 2008; Peters, 2010). Therapeutic communities are one such residential treatment program in New Zealand that aims to provide effective alcohol and drug abuse treatment (National Committee for Addiction Treatment Secretariat, 2008).

Antisocial Personality Disorder

Antisocial personality disorder (ASPD) according to the DSM-IV is an Axis II Cluster B personality disorder and can be defined as a psychiatric condition in which people show a pervasive disregard for the law and the rights of others (American Psychiatric Association,

1994; Forrest, 1994; Gabbard, 1994; Pemment, 2013). The behaviour of these individuals can be characterised as manipulative, exploitative, deceitful and impulsive. Individuals with ASPD show a lack of concern for the expectations and rules of society and frequently become involved in at least minor violations of the rules of society (Daughters et al., 2008; Pemment, 2013).

ASPD diagnosis is limited to people over the age of 18, however these individuals attest to a history of antisocial behaviours before the age of 15, including lying, truancy, delinquency, substance abuse, running away from home and infractions of the law (Forrest, 1994; Gabbard, 1994). Dynamically, these individuals remain fixed in earlier levels of development because of childhood neglect or abuse by parental figures (Forrest, 1994; McWilliams, 1994; Paris, Chenard-Poirier, & Biskin, 2013). As a result of this form of parental rejection the child is deprived of a normal attachment process. In addition, as a consequence of poor limit setting by parental figures, they are unaware of the harm caused by their impulsive behaviours, and they pursue gratification regardless of the means and without experiencing any feelings of guilt (Forrest, 1994; Gabbard, 1994; McWilliams, 1994; Paris et al., 2013).

According to the Christchurch Psychiatric Epidemiology Study carried out by Wells and colleagues (1989) 3.1% of participants were said to have ASPD. Further worldwide community studies stated that 2-4.5% of the population – within mainly English speaking countries -- have ASPD (Fitzgerald & Demakis, 2007; Miric, 2005). However within the addiction population the percentage of those with ASPD is significantly higher. Furthermore a New Zealand prison study showed 34.5% of women and 41% of men within the prison system were diagnosed with ASPD (Simpson, Brinded, Laidlaw, Fairley, & Malcolm, 1999). Lastly a longitudinal study carried out in Dunedin and Christchurch stated that 4.5% of primary and intermediate aged children displayed conduct disorder and severe antisocial behaviour, which can lead to adult diagnosis of ASPD, and those of Maori or Pacific descent are at greater risk of being diagnosed with conduct disorder (Ministry of Social Development, 2007).

Conclusion

New Zealand data demonstrates an increasing prevalence of drug addiction as well as a high number of individuals with ASPD within the addict population. However the research on ASPD is very limited and no studies were discovered on the treatment of ASPD in New Zealand.

Chapter 2 - Methodology

This chapter will outline the process undertaken to identify the available literature regarding the use of TCs in the treatment of addicts with ASPD. I will discuss the guidelines given by Crotty (1998) regarding the four steps of the research process: epistemology, theoretical perspective, methodology and methods. I will explain the rationale for choosing to undertake a critical review of literature as opposed to a systematic literature review. Although a systematic review is beyond the scope of this paper I will loosely follow the seven stages of undertaking such a review, highlighting the inclusion/exclusion criteria along with the detailed literature search process.

Evolution of the Research Question

Are hierarchical therapeutic communities effective in the treatment of addicts with anti-social personality disorder?

My interest in ASPD began as a young graduate student. The first client I worked with was diagnosed with ASPD. I struggled to connect with him as he was withdrawn and I found myself feeling mistrustful towards him. I felt I had to be very cautious in how I engaged in therapy with him. I researched the literature regarding ASPD and found there was little hope for positive treatment outcomes. This man I was working with did not complete treatment and was later arrested for shoplifting.

As a result I became keen to discover more about clients with ASPD and addiction issues, how they perceive things, their background, functioning, how they present themselves and how best to work with them. Research indicates that at least 50% of those with ASPD will have some form of an addiction, and the diagnosis of ASPD often appears to hinder the effective treatment of their addiction.

As I progressed through my studies and matured as a clinician I was able to observe several treatment modalities and learn about different treatment options. Working within a hierarchical TC I saw how the TC setting allows for holistic treatment which addresses social, functional, emotional and spiritual issues and needs, within a structured environment. This appeared an ideal setting for the effective treatment of clients with addiction and ASPD. I continued to encounter clients with ASPD within the addiction treatment setting and this led me to investigate the use of hierarchical therapeutic communities in the treatment of clients with ASPD and addiction. This investigation provided a focus for my research and stemmed from a genuine interest (Aveyard, 2010).

Crotty: Four Steps

Crotty (1998) suggests that there are specific process levels within the decision making process when research is undertaken. A researcher initially takes a certain viewpoint in regards to the nature of knowledge such as objectivism, subjectivism or constructionism. This viewpoint or epistemology then underlies the research process and governs the selection of the theoretical perspective – such as interpretivism or postpositivism. The theoretical perspective will then influence the type of research questions and dictate the choice of methodology. The methodology will in turn direct the choice of research methods undertaken. Creswell (2003) suggests that these four decision-making elements lead to an approach that tends to reflect the researcher's initial stance towards the nature of knowledge.

Epistemology

Epistemology is the investigation into the nature of knowledge. It endeavours to answer questions such as: What is knowledge and how is it acquired? How do we know what we know? Benjamin (1996b) argued that no research exists in a theoretical vacuum therefore all research must be embedded in an epistemology. Crotty (1998) draws attention to the three fundamental epistemological positions, objectivism, subjectivism and constructionism.

Objectivism holds the epistemological position of meaningful reality or truth existing outside the observer. Subjectivism holds the epistemological position of the observer imposing meaningful reality on the object of the research. Constructionism holds to the epistemological position of reality being constructed by the observer through giving meaning to what he observes.

In this dissertation I will be working predominantly within a constructivist paradigm while incorporating the concept of a constructivist realism approach. Crotty states that there is no reality without a mind, and meaningful realities are only generated through our engagement with the realities in our world: "meaning is not discovered, but constructed" (1998, p. 26). In this study I collate information about addiction, ASPD and TCs and make meaning out of the collated information in order to answer the research question. By studying and comparing a variety of literature I am able to allow important themes and issues to be identified and I explore these issues, thus keeping in step with the constructionist paradigm (Mertens, 2005).

It is important to note however that I include studies that have been carried out from a positivist stance. Controlled trials, outcome studies and case material all offer valuable information. Embracing mixed method studies allows me to deepen, complement and expand on the research being explored without wavering from the constructivist mindset (Creswell,

2003; Mackenzie & Knipe, 2006). Constructivist realism therefore is incorporated as an additional appropriate paradigm, as it embraces both a positivist and constructivist stance, taking into account the role of the mind and culture whilst acknowledging the role of reality (Bagheri Noaparast, 2013; Cupchik, 2001).

Theoretical Framework

Crotty states that the theoretical framework is "the philosophical stance informing the methodology" (1998, p. 3) and therefore the framework provides a context for the research process. The theoretical framework guiding this literature review is that of interpretivism. The interpretivist approach is generally synonymous with and complements the epistemological stance of constructivism (Schwandt, 1994).

Theorists working under the umbrella of interpretivism carry the notion of choice, free will and individualism. This opens the door for the reviewer to shape the approach and method of the review (Cohen & Manion, 1989). Interpretivism acknowledges that human beings have a conscience. This allows them to think, feel and make sense of their environment (Holloway, 1997), therefore they interpret information before taking appropriate action.

In this critical literature review interpretivism enables me to extrapolate truth and meaning from research relating to TCs for addiction, addiction itself, and ASPD. It gives me the freedom to come to my own conclusions and meanings in regards to answering the research question. Constructivism proposes that there is no objective truth waiting to be discovered but meaning comes into existence through one's engagement with the world. Interpretivism, which is about how I interpret the data, allows me to write this dissertation in a personal style, and provide new insight on this particular topic by investigating a previously poorly researched combination of disorders, modalities and treatment context, and by bringing in a New Zealand perspective.

As I practice as a psychotherapist within a hierarchical TC for addiction, I have great interest in this topic and in the use of the TC in the treatment of addicts with ASPD. My personal interest made it impossible to completely prevent bias as I entered the research process. However as Holloway (1997) states, social research is naturally biased, as it is the study of people and people are complex. People create their own meaning from the world around them and therefore social research cannot be completely objective and neutral. The researcher's values are always present (Finaly & Evans, 2009; Morrow, 2007). I acknowledge this bias and aim to be transparent by setting out the research processes that lead to my discussion, critiques and conclusions.

Methodology

According to Crotty methodology is the "strategy, plan of action, process or design" (1998, p. 3). It is consistent with the epistemology and theoretical perspective and arises from the research question (Crotty, 1998; Petticrew & Roberts, 2006). The purpose of this study is to critically review the literature regarding the effectiveness of hierarchical TCs in the treatment of addicts with ASPD, including information regarding ASPD treatment and the link between ASPD and addiction.

Literature reviews have several purposes – they review past and current theories, they draw on all significant, relevant and scientifically sound research, provide summaries of known literature, enrich and further develop knowledge bases and provide guidance for policies, best practice and ongoing study (Petticrew & Roberts, 2006; Tranfield, Denyer, & Smart, 2003). Literature reviews enable a comparison of studies done in isolation, the collation of information regarding different topics, and allow meaning to be made out of those results in keeping with the constructivist mindset. There are several different forms of literature review.

One of the most accurate forms of review is a systematic literature review (Petticrew & Roberts, 2006; Tranfield et al., 2003). Organisations such as the Cochrane Collaboration, the Centre for Reviews and Dissemination, the Campbell Collaboration and National Institute for Clinical Excellence promote and support systematic review work (Reeves, Koppel, Barr, Freeth, & Hammick, 2002). Systematic reviews and meta-analyses are forms of literature review based on scientific, quantitative analysis. In theory they produce accurate, scientific, non-biased literature by using a prescribed way of reviewing published and non-published works (Petticrew & Roberts, 2006; Reeves et al., 2002; Tranfield et al., 2003). This form of literature review, although producing in theory accurate, non-biased results, lies within a positivist framework and therefore is not compatible with the constructionist paradigm.

It is important to note that if I were to carry out a formal systematic review, an extensive search would be carried out to obtain all possible information relating to this question. Failure to obtain all information would affect the validity and compromise my resulting review and discussion. However, my aim is to find themes in the data with the use of metasynthesis, therefore although my search was thorough the end product was not a formalized prediction but rather an interpretive explanation derived from the themes and concepts identified (Thomas & Harden, 2008).

I have chosen to carry out a critical review of the literature, which critically examines published works utilising a systematic approach and an outlined search strategy (Aveyard, 2010). In a critical review aspects of the systematic review process and guiding principles such as the seven stages of undertaking a literature review outlined by Petticrew and Roberts (2006) - can be used within an interpretivist framework, to enhance the accuracy of the review being undertaken (Aveyard, 2010). Metasynthesis of the literature will also be utilised as according to Pawson (2002) metasynthesis identifies the underlying reason for change. Pawson believes that it is not programs that work but rather it is the underlying reasons or resources that they offer subjects that bring about change. Therefore metasynthesis captures the mechanisms or important components that underpin each program. The researcher is then able to build theory by accumulating understanding across a wide range of programs. Unlike meta-analysis, metasynthesis is not limited to synthesizing strictly comparable studies but expands to the construction of interpretations and reveals correlations between accounts. Synthesis can be an interpretive, indicative, hermeneutic and extensive process (Pawson, 2002; Thomas & Harden, 2008). It takes into account the themes and similarities of multiple qualitative and quantitative studies and identifies the common core elements and themes resulting in a greater level of understanding (Cronin, Ryan, & Coughlan, 2008; Pawson, 2002; Tranfield et al., 2003).

Method

The research method is defined by Crotty as the "techniques or procedures used to gather or analyse data related to some research question or hypothesis" (1998, p. 3). I am attempting to combine research from mixed method studies, and extrapolate meaning from those studies to explore the potential benefits of hierarchal TCs for addicts with ASPD. The best method of analysis to achieve this is metasynthesis, drawing on themes rather than simply relying on data gathered, and thus working within the constructivist paradigm.

Polit and Beck (2004) state a critical review of literature needs to be well planned and have specific search and selection criteria. Therefore to accurately gather information and get to the point of thematic analysis and I have taken into account the seven stages of carrying out a systematic literature review suggested by Petticrew and Roberts (2006).

The seven stages are as follows:

Stage 1: Identification of the question.

My research question is: Are hierarchical TCs for addiction effective in the treatment of addicts with ASPD? To explore this question I initially read literature regarding hierarchical TCs, addiction and addiction treatment, and ASPD and ASPD treatment and

found that common themes arose. These emerging themes led me to further questions such as:

- Do TCs for addiction provide effective treatment for addicts?
- What is the link between addiction and ASPD?
- What characteristics of ASPD contribute to the perceived poor treatment outcomes?
- What treatment options have been tried with those with ASPD?
- What methods of treatment are effective for clients with addiction and ASPD?
- What does effective treatment look like for a client with ASPD and addiction?

The collation of this information guided me back to the answering of the initial question.

Stage 2: Identification of Study Type: Inclusion/Exclusion Criteria.

Defining the inclusion/exclusion criteria is an important step in the research process and helps to reduce selection bias (Aveyard, 2010; Petticrew & Roberts, 2006). The literature being researched and critiqued in this study is of a psychodynamic nature, extracted from sociological, psychological, counselling, addiction and organizational fields. In order to find this literature I used several databases. Articles not in English were excluded. PsycINFO, Psychoanalytic Electronic Publishing (PEP), and the use of the 'Scholarly Journal' tab in Proquest Central, and Proquest Dissertations and Theses Global all provided peer reviewed works and so were the predominant databases used.

I excluded literature pertaining to severe mental health disorders co-occurring with ASPD, studies carried out over one month or less, and studies of TCs for specific populations such as children and adolescents, mothers and their children, those with psychiatric illnesses and severe psychopathy, and those seeking treatment solely for eating disorders and sexual or other addictions. Articles discussing 'Personality Disorders' but not specifically mentioning ASPD were also excluded.

Initially TCs within prisons for offenders with addiction issues were excluded, however as my research progressed I included them as I realized that these studies were of value, as a large population of clients with ASPD and addiction are found within the criminal justice system. Furthermore the use of hierarchical TCs for the treatment of individuals with ASPD and addiction has been well studied within the criminal justice system.

I also initially excluded all studies pertaining to individuals under the age of 18, however again as the study progressed several questions arose regarding the diagnosis of true ASPD related behaviour as opposed to behaviour as a result of addiction. I therefore had to

review articles referring to adolescents with conduct disorder, to identify the progression of ASPD from earlier antisocial behaviours.

Stage 3: The Literature Search Process.

Databases used in literature search process:

- 1. PsychINFO
- 2. Proquest Central
- 3. Proquest Dissertations and Theses Global Full Text
- 4. Psychoanalytic Electronic Publishing (PEP)

The initial keywords and terms arose from the research question with searches pertaining to TCs, addiction and ASPD. The title of the article indicated whether it related to my study or not and abstracts of seemingly related articles were then reviewed to see if they fully met the study inclusion criteria. From these initial studies the reference lists of key articles were reviewed along with the cited articles and the 'find similar article' functions were utilised as Aveyard (2010) suggests. As the search progressed, further areas to be researched arose and further key terms were identified from the literature, resulting in further search terms being explored. The search process and results are outlined in Appendix A.

I entered relevant articles into EndNote and filed them into basic categories. This allowed me to quickly identify how much information I had for each topic and to ensure articles were not duplicated.

Most of the literature for this dissertation was found in the form of articles. However, several books containing information regarding TCs and ASPD are included. These books were located in the AUT Library. My dissertation supervisor and my fellow clinicians were also consulted and ebooks reviewed. Relevant clinical guidelines, Government statistics and Government-funded reviews were also utilised. I was assured that I was near the end of the research process when the same key articles repeatedly emerged and the identification of new relevant articles lessened (Aveyard, 2010).

Stage 4: Screening of Results.

It is vital to become familiar with the literature you are reviewing and assess its quality and relevance to your study (Aveyard, 2010; Rhoades, 2011). In order to do this I read and re-read the literature ensuring that it met the inclusion criteria and could be related back to the research question. Once articles fully meeting inclusion criteria were identified, they were organized according to topic and I proceeded to Stage 5.

Stage 5: Critical Assessment.

Articles that met the inclusion criteria came from several different sources. These sources are categorised as primary, secondary, conceptual/theoretical and anecdotal/opinion/clinical. The following list gives the information required from each source for a critical review of the literature (Colling, 2003, cited in Cronin et al., 2007). For each source the author, year, journal, and purpose and type of study was documented. At the end of each review I also comment on the strengths and weaknesses of each article.

Primary Sources. These were articles on original studies by the original researchers. Information regarding the setting, data collection method, major findings and recommendations was reviewed.

Secondary Sources. These articles were summaries or descriptions of studies carried out by an author other than the original researcher and were presented mainly in the form of a review. The review question and purpose, the key definitions, the review boundaries and appraisal criteria, the synthesis of the studies and the summary and conclusion were identified.

Conceptual/Theoretical. These were articles that were concerned with the analysis or description of theories or concepts associated with a particular topic. The purpose of the paper, its credibility, quality, content, and coherence were reviewed as well as the recommendations of the authors.

Anecdotal/Opinion/Clinical. These articles are not focused on research, review or theories. They may take form of a case study or a report from a clinical setting. This particular source of information was reviewed in the same way the conceptual/theoretical sources of information were.

The validation criteria outlined by Reeves and colleagues (2002) were also taken into consideration. These are outlined below:

- Contextual information location details and transferability of the study.
- Methodological information identification of the research design, type of data collected, sample size, method of analysis and consideration of bias.
- Outcome information the results of the studies, identification of commonalities or discrepancies between studies.

Taking into account these assessment tools, I wrote a summary of each article and then compiled a further revised summary, which served as a helpful reference point when forming an overview of the literature collected and reviewed. These summaries also helped

me to identify similar themes emerging from the research. The summary of articles is attached below in Appendix B.

Stage 6: Synthesis and Identification of Common Themes.

I summarized and synthesized the theoretical literature and then the research literature. This involved tracking the chronological development of ideas and assessment tools, identifying themes, and comparing results. As I became more familiar with the material, key themes and sub-themes arose. At each stage of the process I continued to deepen my understanding of the strengths and weaknesses of the studies. The initial presentation of the research evidence was guided by chronology, with thematic ordering taking precedence if it provided better clarification.

Stage 7: Discussion.

Chapters 3-5 bring together all the collated information, discussing themes identified relating to the effective use of the hierarchical TC in the treatment of addicts with ASPD. In Chapter 6 I synthesise and discuss the key findings, suggest clinical guidelines for the treatment of addicts with ASPD in therapeutic communities, and identify potential areas for further research as a critical literature review provides a basis for this (Aveyard, 2010; Cronin et al., 2008; Rhoades, 2011).

Chapter 3 - Therapeutic Communities in the Treatment of Alcohol and Other Drug Addictions

Introduction

Therapeutic communities are not a modern invention. They have been in existence for numerous purposes for centuries (Bratter, Bratter, Radda, & Steiner, 1993; Deitch & Solit, 1993; DeLeon, Melnick, Schoket, & Jainchill, 1993). However, TCs designed for the treatment of addiction are a recent phenomenon (Lees & Rawlings, 2004).

Alcohol and other drugs (AOD) therapeutic communities provide an alcohol and drug free environment, which brings about behavioural and psychological change in order for addicts to achieve a drug free lifestyle (Bratter et al., 1993; Smith, Gates, & Foxcroft, 2008; Vanderplasschen et al., 2013). Personal growth of residents is achieved by placing them in charge of their own recovery. Residents are expected to abide by clearly defined rules, undertake increasing responsibility within the TC and take responsibility for the welfare of others in the community. Staff carry the responsibility for all of the clinical and daily operations of the facility (Deitch & Solit, 1993; Smith et al., 2008; Vanderplasschen et al., 2013). The goal of treatment is a global change in the individual through the integration of behaviour, feelings, values, and attitudes associated with a socially positive, drug-free lifestyle. TCs aim to treat the whole person by utilising the peer community and the expertise of staff. This method of treatment has become a proven form of treatment for addicts (Smith et al., 2008; Tims, De Leon, & Jainchill, 1994; Vanderplasschen et al., 2013).

History of Therapeutic Communities

Historical literature suggests TCs gained their concepts, beliefs and practices from religion, philosophy and social behavioural sciences (Bratter et al., 1993). Some authors suggest that TCs were influenced by an ancient form of communal healing and support, as described in the Dead Sea scrolls at Qumron (De Leon, 2000; DeLeon et al., 1993).

The term 'therapeutic community' is a modern term, which was first used in the 1940s in Great Britain to describe the TCs in psychiatric hospitals. These communities were pioneered by Maxwell Jones (Rawlings & Yates, 2001), an army psychiatrist, and were seen as the 'third revolution' in psychiatry as they represented a shift from the use of an individual therapist to the use of a social psychiatric approach. However TCs for addiction did not emerge until the 1960s where they formed independently of psychiatric therapeutic communities (De Leon, 2000).

Modern TCs evolved from two self-help groups, Alcoholics Anonymous (AA) and Synanon (Borkman, Kaskutas, & Owen, 2007; Deitch & Solit, 1993). Early addiction TCs

creatively combined the influences of Synanon and AA. There were some criticisms however of these early addiction TCs, for example residents were required to stay between 12 to 36 months for treatment and were unintentionally made to choose between their families and the therapeutic family. This meant that after long treatment residents were left to fend for themselves without proper family support in recovery (Rawlings & Yates, 2001; Soyez & Broekaert, 2005). The length of stay in treatment was also problematic because of funding issues due to an increase in the addiction population. Modified TCs were then developed which carried the same fundamental philosophies and treatment methods but with a shorter duration of stay (Soyez & Broekaert, 2005). A landmark conference amongst TC workers in 1976 shifted the addiction TC from an alternative treatment to a major human service modality (Borkman et al., 2007; Deitch & Solit, 1993).

View of Recovery

The purpose of the TC is to lead clients toward recovery, that is, a change in identity and lifestyle. Psychological goals of TCs are to change the negative patterns of behaviour, thinking, and feelings that predispose individuals to drug use (cognitive behavioural therapy). Social goals of TCs are to develop the conduct, skills, attitudes, and values of a responsible, drug-free lifestyle (Bratter et al., 1993; Deitch & Solit, 1993).

Some residents who enter treatment have had a prior experience of adequate social functioning and vocational skills. To these clients recovery means to re-establish and sustain the capacity for positive living while regaining physical and emotional health through drug free living. Others that enter treatment lack any social or vocational skills. For these clients recovery involves the learning of new behavioural skills, attitudes, values and interpersonal skills. The TC program structure and a number of its techniques and processes help these individuals to address their issues (Tims et al., 1994; Vanderplasschen et al., 2013).

TC Program Structure

The treatment program is at the core of the TC and its organizational structure can be seen as a pyramid with staff at the upper level (Rawlings & Yates, 2001). This hierarchal structure is designed to reveal to the residents, and to others, their personalities and psychological characteristics, their social disaffiliations, and the degree to which they are committed to lifestyle change (Borkman et al., 2007; Deitch & Solit, 1993; Smith et al., 2008; Soyez & Broekaert, 2005; Vanderplasschen et al., 2013).

Addicts are notorious for their mistrustfulness of most environments and for their poor accountability. These issues are addressed through engagement with groups, work and social

activities. Residents' ongoing issues with authority figures and boundaries are addressed by encouraging them to engage with staff in a reparative relationship and by holding them accountable for their actions. The TC program creates the right framework for challenging and changing these behaviours and for developing correct social skills, attitudes, and values for sustained abstinence (Deitch & Solit, 1993; Rawlings & Yates, 2001).

Residents who enter the program generally have had poor past friendships and romantic attachments due to problematic drug use. Trust is difficult for addicts because of repeated disappointments, unhealthy dependencies, exploitation and abuse. Hence clients lack the skills to engage in authentic relationships with others (De Leon, 2000; Deitch & Solit, 1993; Rawlings & Yates, 2001).

Learning and growth occur through social interaction, so TCs incorporate a number of forums for social interactions to take place. Best-practice TCs have a structured day program, education groups, peer encounter groups, emotional growth training sessions, one to one sessions and work duties. A structured program brings about order in the lives of most of the residents who have had a disordered lifestyle. Structured community facilitates the learning of self-discipline, time management, planning, setting and achieving goals and accountability. Education groups provide understanding of the importance of a drug free lifestyle and psychological issues (Australasian Therapeutic Communities Association, 2013; Deitch & Solit, 1993; Rawlings & Yates, 2001). Encounter groups increase the residents' awareness of the impact of their attitudes and conduct on themselves and others. Emotional growth training sessions teach individuals how to identify and manage their feelings (De Leon, 2010; Tims et al., 1994). One to one sessions support the resident in establishing a secure attachment with their case manager, as this increases the level of safety and trust allowing the resident to work towards their traumatic experiences experienced by residents (Australasian Therapeutic Communities Association, 2013; Rawlings & Yates, 2001).

Aftercare

Most residents struggle as they move from a structured environment to the somewhat unstructured external community where there are fewer social interactions and routines. They can experience loneliness and boredom, which could drive them back into substance use. Therefore, as part of aftercare residents are encouraged to have a sponsor, and to engage in 12 step programs to support them in maintaining their abstinence outside of the TC (Australasian Therapeutic Communities Association, 2013; De Leon, 2000; Deitch & Solit, 1993; Rawlings & Yates, 2001; Soyez & Broekaert, 2005). TCs also encourage residents to engage in a wide

range of support groups so they can achieve lifelong abstinence (Tims et al., 1994; Vanderplasschen et al., 2013).

Are TCs Effective in the Treatment of Addiction?

A review of the literature relating to the measurement of treatment effectiveness shows that measuring the effectiveness of substance abuse treatment in TCs is complex and the results at times are contradictory.

Gowing, Cooke, Biven and Watts (2002) in their review on TC outcomes reported that there was little evidence to support the claim that TCs are more effective than other forms of treatment for addicts. They did note however that there were links between TC treatment and reduced drug use and criminality, improvement in psychological functioning and health, increased employment opportunities and ongoing education and training. In 2004, Lees and Rawlings in their meta-analysis of 29 published studies on the effectiveness of TC treatment in comparison to other forms of treatment noted that, despite there being difficulties in identifying common outcome measures, and the variation of entry criteria into the studies, TC treatment was identified to be more effective compared to control programs (Lees & Rawlings, 2004).

Effectiveness measures vary. AA and Narcotics Anonymous (NA) measure effectiveness in terms of achieving and sustaining abstinence from substance abuse. However other treatment providers' aim for harm minimisation as opposed to complete abstinence and so effectiveness is measured across multiple domains – including a decrease in drug use. Relapses are viewed as a natural occurrence within the process of unlearning habitual behaviour. Other indicators of effectiveness are improvement in psychosocial functioning, increased employment rates and reduced criminal convictions (Porter, 2013; Sindelar, Jofre-Bonet, French, & McLellan, 2004).

As well as differing measures of treatment effectiveness, it is important to consider that the clients' own treatment goals may differ greatly. Further, longitudinal research programs to assess post treatment outcomes are complicated by the fact that client populations are often difficult to keep in contact with over long periods of time, with many clients being homeless, moving or not wanting to engage (McKeganey, Bloor, M., Neale, & MacDougall, 2006; Porter, 2013).

Keeping this in mind, however, there are a number of researchers who conclude that the use of TCs for the treatment of addiction is evidence based and effective (De Leon & Wexler, 2009; Gholab & Magor-Blatch, 2013; Lees & Rawlings, 2004; Soyez & Broekaert, 2005; Tims et al., 1994; van de Velde, Schaap, & Land, 1998; Vanderplasschen et al., 2013;

Wolfe, Kay-Lambkin, Bowman, & Childs, 2013). Treatment completion was one of the most important factors resulting in a positive outcome, while the presence of co-occurring disorders such as ASPD presented challenges to treatment (De Leon & Wexler, 2009; Fernandez-Montalvo, Lopez-Goni, Illescas, Landa, & Lorea, 2008; Tims et al., 1994; van de Velde et al., 1998).

Conclusion

Therapeutic communities are an evidence-based form of treatment for individuals with addiction issues but are only effective if processes are followed correctly (De Leon, 2010; Mulder, Frampton, Peka, Hampton, & Marsters, 2009). The processes and structures of modern therapeutic communities have been honed through years of trial and error. The TC remains a hierarchical system based on living and learning within a community setting. The TC stands on basic moral codes such as honesty, acceptance and responsibility (Deitch & Solit, 1993; Tims et al., 1994). The communities are designed to highlight deficiencies in an individual's psychological and social functioning. The ultimate change occurs when an individual surrenders and chooses to engage in the program of his own accord and uses the self-help model to bring about social and psychological change (Dinn & Harris, 2000; Vanderplasschen et al., 2013).

Chapter 4 - Antisocial Personality Disorder

In this chapter I will outline the historical development of ASPD as a diagnosis and discuss what it is and how it is differentiated from other psychiatric disorders including psychopathy. I will discuss the diagnostic tools available for ASPD. Ethnic and gender issues related to ASPD are explored along with personality variables to be considered in the treatment of ASPD. I will then introduce three modalities that have been shown to be effective in treatment, as well as reviewing a number of studies that discuss other approaches.

The Development of the Diagnosis of Antisocial Personality Disorder

The modern concept of antisocial personality disorder can be traced back to the 19th Century and is closely linked with the attitudes and thoughts of society towards criminal justice and civil liberties (Ferguson & Tyrer, 2000). In the 1800s persons who committed heinous crimes were labelled 'morally insane' but clinicians later rejected this terminology as it left the criminal with little hope of rehabilitation (Maudsley, 1874). However clinicians struggled to come up with any other framework that would enable criminality to be explained as a form of personality disorder. The European and American justice systems accepted 'moral insanity' as a diagnosis until Koch, in 1891, introduced the term 'psychopathic inferiority'. Further re-classifications of personality disorders resulted in the term 'psychopathy' being introduced and this has been the foundation for the modern diagnosis of the illness under the Diagnostic and Statistical Manual of Mental Disorders (DSM) and the International Classification of Diseases (ICD) (National Institute for Health & Clinical Excellence, 2010).

Individuals with psychopathic states are those who are able to function in some intellectual capacities, however struggle to conform to certain moral and behavioural standards of society (Cleckley, 1941; McCord, 1956). The core criteria of psychopathy was antisocial behaviour, leading to the classification of the day, which evolved from sociopath (DSM-1) to antisocial personality disorder (DSM-II) and then dissocial personality disorder (ICD) and psychopathy (Hart & Hare, 1996).

The Mental Health Act in the UK (1983, amended in 2007) introduced the generic term 'mental disorders', which covered mental illness, psychopathic disorder, mental impairment and severe mental impairment. Practitioners were required to be satisfied that an appropriate medical treatment was available when detaining individuals under the Mental Health Act. This requirement became the way of defining treatability and getting people into treatment (National Institute for Health & Clinical Excellence, 2010).

Ambiguity remains amongst clinical practitioners when it comes to diagnosing individuals with ASPD. Some believe this diagnosis encourages an invalid role whereby clients increase their self-indulgent and destructive behaviour, while not taking responsibility for their actions. Others believe that these individuals are better managed in conjunction with the criminal justice system, as they also exhibit complex health needs and the diagnosis provides a context in which to gain treatment. This tension spills out into the criteria of diagnosis as well (National Institute for Health & Clinical Excellence, 2010).

The DSM-IV focuses on antisocial behaviour rather than the underlying personality structure (Widiger & Corbit, 1993). The criteria fail to capture aspects of ASPD such as unhealthy interpersonal relationships, disregard for consequences based on the ASPD individual's actions, failure to learn from past mistakes, egocentric inability to be empathically attuned and defiance towards authority demonstrated in consistent rule breaking (Livesley, 2007). The behavioural focus of the DSM-IV has been highly criticised by many clinicians because it leads to overdiagnosis of individuals in certain settings, such as prisons, and underdiagnosis in the community (Lilienfeld, 1998). It also requires children under the age of 15 to have a diagnosis of conduct disorder, which is problematic for developmental reasons. The biggest criticism of the DSM-IV diagnosis is that it does not help practitioners make treatment decisions, because major limitations such as the overlapping of different personality disorder diagnoses, and varying personality profiles within the same diagnosis, result in a lack of clarity around personality psychopathology. As well as this, the criteria focus on specific behaviours, such as impulsivity and aggression, rather than addressing the core personality structure. However recent studies have shown the approach of the DSM might be fruitful in preventing full-blown ASPD in adults, as it identifies the precursor conduct disorder in children which makes earlier intervention possible and could prevent the onset of ASPD in adulthood (Livesley, 2007). Evidence showed that 50% of individuals with ASPD in adulthood have shown symptoms of this before the age of 10 and from the remaining 50%, 95% showed symptoms before the age of 12 (Swanson, Bland, & Newman, 1994).

The DSM-V criteria for antisocial personality disorder capture more of the personality structure of the ASPD individual than do previous versions. The disorder is described in terms of significant impairments in personality functioning in both self and interpersonal areas, along with behavioural manifestations (American Psychiatric Association, 2013).

DSM-IV Criteria

- A) There is a pervasive pattern of disregard for and violation of the rights of others occurring since age 15 years, as indicated by three or more of the following:
 - 1. Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
 - 2. Deception, as indicated by repeatedly lying, use of aliases, or conning others for personal profit or pleasure;
 - 3. Impulsivity or failure to plan ahead;
 - 4. Irritability and aggressiveness as indicated by repeated physical fights or assaults;
 - 5. Reckless disregard for safety of self or others;
 - 6. Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
 - 7. Lack of remorse as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another;
- B) The individual is at least age 18 years.
- C) There is evidence of conduct disorder with onset before age 15 years.
- D) The occurrence of antisocial behaviour is not exclusively during the course of schizophrenia or a manic episode.

(American Psychiatric Association, 2000, pp. 649-50).

ASPD individuals exhibit a number of traits such as impulsivity, negative emotionality, and a weak conscience. These result in a range of interpersonal and social deficits. Some traits may be inherited however individuals with ASPD also tend to have had a poor upbringing with a fractured family and observations of parental conflicts, leading to poor care of the children and poor attachment. They may have untreated trauma. From the outset these individuals tend to have higher rates of truancy, substance abuse and poverty. As a result, as adults they have poor literacy skills and fewer opportunities to get jobs. They experience themselves as isolated from mainstream society. All of these factors place them at high risk of imprisonment and early mortality (National Institute for Health & Clinical Excellence, 2010).

Benjamin (1996a) describes the core features of ASPD as consisting of a pattern of inappropriate and unmodulated desire to control others implemented in a detached manner. There is a strong need to be independent, to resist being controlled by others who are usually held in contempt. There is a willingness to use untamed aggression to back up the need for control or independence. The antisocial personality presents in a friendly, sociable manner, but that friendliness is always accompanied by a baseline position of detachment. He or she does not care what happens to others (p. 197).

Gaik, Abdullah, Elias, and Uli (2010) regard antisocial behaviour as resulting from an individual's inability to respect the rights of others and their refusal to conform to social norms or obey established rules. Moffit (2001) identifies early delinquent behaviour as antisocial behaviour that can lead to school failure, impairment in socio-emotional development, peer rejection and eventually adult crimes. Currently it can be said that criminal behaviour is at the core of defining ASPD, however not everyone who has ASPD is imprisoned, and research suggests that slightly less than 50% of individuals in prisons have ASPD (National Institute for Health & Clinical Excellence, 2010).

How ASPD Is Differentiated from Other Disorders

ASPD tends to overlap with, but can be differentiated from, other personality disorders especially narcissistic disorder and psychopathy. It is important that clinicians are able to distinguish the two. Millon and Davis offer a useful perspective on ASPD and narcissism:

the antisocial (individual) is driven, first to benefit himself and second, to take vigorous action to see that these benefits do accrue to himself. This pattern is similar to, yet different, than seen in narcissists, where an unjustified self-confidence assumes that all that is desired will come to them with minimal effort on their part. The anti-social assumes the contrary. Recognising by virtue of past experience that little will be achieved without considerable effort, cunning and deception, the antisocial knows that desired ends must be achieved from one's own actions. Moreover these actions serve to fend off the malice that one anticipates from others, and undo the power possessed by those who wish to exploit the antisocial (Cited in NICE, 1990, p. 19).

The core motivation of the antisocial is his drive to look after himself even at the cost of others (Millon, 1996).

ASPD and psychopathy are also differentiated by an added emotional impairment, which is seen in the lack of empathy, callousness, shallow affect and failure to take responsibility (Hart & Hare, 1996). The relational styles of psychopaths involve a greater degree of grandiosity, glibness, superficial charm and manipulation of others (Hart & Hare, 1996). All those who qualify for the diagnosis of psychopathy meet the criteria for ASPD, conversely however only a third of ASPD individuals met the criteria for psychopathy (Hart & Hare, 1996). Coid and Ullrich (2010) confirmed this overlap in their study of 470 participants recruited from 131 prisons in UK and Wales. The study concluded that ASPD and psychopathy are not separate diagnostic entities and that they have overlapping symptoms.

Psychopaths and ASPD individuals have also been compared in terms of cognitive control deficits. Zeier, Hiatt Racer, Baskin-Sommers and Newman (2012) in their study examined the attributes that are unique as well as those that overlap between the two pathologies.

The premise for this study comes from the notion that psychopathic individuals do not exhibit defects in cognitive control. The study concluded that there was a significant association between elements of antisociality in both ASPD and psychopathy, and also that both personality disorders demonstrated poor Executive Functioning (EF). Critically the results of the study were difficult to decipher and there were gaps in the score ranges that were not explained. This would have been important as they were measuring the sub-types of ASPD.

The Internal World of ASPD Individuals

It is generally accepted that individuals with ASPD have a precursor conduct disorder in childhood. As early as 1934, Klein identified delinquent children as having a rigid and severe super-ego, which causes high anxiety when they are in relationship with others (Gabbard, 1994). It is as a response to anxiety that these individuals employ violence as a way of separating from the other and gaining a sense of omnipotence, while also reducing the anxiety. Historically there has been some disagreement however about the contribution of early child development to adult ASPD. In the early literature, Cleckley (1941) was reluctant to accept the possibility of a neglectful and difficult history of care as contributing to the development of antisocial personality. Later researchers do not support this reluctance. For example Harlow and Harlow, who conducted studies on monkeys raised in isolation, as compared with controls, showed that early neglect results in withdrawn behaviour similar to the 'wall off' behaviour seen in ASPD individuals (Gabbard, 1994).

Gabbard acknowledged there are biological factors contributing to the etiology and pathogenesis of ASPD (1994). Genetic influences associated with alcohol dependency and conduct disorders have also been identified by twin studies (Slutske, 1997). There are a number of other authors including Yeudall (1977) and Malloy and colleagues (1989) who link aggression with hormonal and neurochemical factors. Gabbard applies these findings to early infant mother relationships and suggests that difficulties in the infant-mother relationship could exacerbate issues in comforting the child, which would prevent the normal attachment process (1994). Regardless of whether the issue lies with the mother or the infant, ultimately the person does not have a good developmental level of object constancy. The ideal object is seen as an aggressive introject and referred to as a strange self object, leading to the maturation process coming to a stop before the 'separation-individuation' and object constancy is achieved (Grotstein, 1982). This belief of the mother being a stranger or an untrustable individual leads to two separate processes, one of which is characterised by a detachment from all relationships and experiences, and the other a more object related process that attempts to build relationship with others through the use of power and destructiveness. Gabbard also points out that depression in these individuals is more a resentment towards the world for not satisfying their needs, and their attempts at suicide are from a position of narcissistic rage rather than genuine hopelessness and a wish to die. When the antisocial behaviour is challenged the ASPD individual responds to it in self-righteousness, dishonesty, manipulation and blame (1994).

Benjamin (1996a) agrees that disrupted parental care contributes to the development of ASPD. A consequential history of being ignored leads ASPD individuals to hold a structure of attack in current relationships. The excessive control portrayed by these individuals is a response to unpredictable parental discipline in childhood, so that in adulthood they fiercely protect their autonomy. Growing up, ASPD individuals have had to take responsibility for themselves too early, and this leads to blaming and insensitivity towards others, as their needs were never met. A tool they use in this process is charming and conning others. It is important to note that ASPD individuals do not internalise their relationship with their parents at all, in contrast to BPD individuals who have internalised their parents in a hostile way.

The poor connections resulting from the above factors prevent the formation of conscience and this, combined with the need to control, sets these individuals up for deceitful behaviour and an unwillingness to conform to social norms. Combining all of these factors

sets the individual up to be concerned only with meeting their own needs in the moment rather than being able to plan ahead. The result is a reckless self indulgence and if autonomy is challenged the person reverts to attack without remorse, all the while maintaining a 'wall off' stance.

Evans (2011) affirms that ASPD individuals generally tend to have a troubled past therefore their knee-jerk reaction in general relationships is to establish control over the other through power games. If this is unattainable they tend to be seductive by playing the role of a victim and to elicit sympathy from those that are caring for them. Both these scenarios are set up to leave the individual with ASPD in control of the relationship. Therefore clinicians need to be aware of the pull these individuals have into the unconscious drama of their childhood.

Interestingly, Cleckley speaks of ASPD as a destruction of personality rather than merely as a personality disorder. The internal world of these individuals is constructed around over-idealisation of 'self' and is maintained by the drive they have to constantly be on top of a relationship. These individuals gain the upper hand by denigrating the other through aggression and other forms of manipulative, violent action. It can be said that their lives are built on pseudo-identification with others designed to create a false sense of empathic understanding by demonstrating maturity and teachability. However, the identification has a more sinister element whereby they use their false sense of empathy to gain the upper hand and take over the other through intrusive projective identification (Cleckley, 1964). Within interpersonal interactions the individual with ASPD lacks the ability to acknowledge the dependence they have on the other, and struggles to separate themselves from the other.

From these theorists a raft of issues emerges for clinicians who are attempting to treat individuals with ASPD. These individuals are highly adapted to masking destructive behaviours by hiding behind normal thinking and functioning (Evans, 2011). They believe that their functioning is normal. They have a powerful effect on the psyche of those that are working with them. It is difficult for a clinician to reflect and make meaning of the agenda behind their behaviours. The denial and rationalisation they use is designed to entice the clinician into a full sense of security and collusion.

Diagnostic Tools

Self-reporting tools for diagnosing ASPD are prone to be unreliable because these individuals manipulate and lie without any remorse. Cottler and colleagues (1998) examined the reliability of self-reporting assessment tools used by those diagnosed with CD and ASPD. The study included 453 participants. It concluded that ASPD is difficult to assess from self-reports as the participants are not likely to disclose behaviours with legal implications.

Critically however the study was very difficult to follow, as the description of the methodology was inconsistent at times. An example of this is when one subgroup dropped down from N=162 to N=80. No explanation was given for the drop in numbers.

This result is supported by Fernandez-Montalvo, Landa, Lopez-Goni and Lorea (2006), who compared the degree of concordance between the IPDE tool and MICMI-II tool. A sample of 105 participants was divided into two groups - 50 treatment-seeking alcoholics including a number with ASPD, and 55 participants from the general population. Results from the two tools used were inconsistent and this was attributed to the method of recording the data. The IPDE is seen to be more accurate due to the conservative nature of assessment done by clinicians as opposed to the MCMI-II, which is a self-reporting questionnaire. Critically the study had a small sample size and does not disclose the number of women in the samples.

Brinded and colleagues (1999) used different measurement tools to assess the level of personality disorders present in prison populations in Christchurch, New Zealand. The study involved a total of 225 inmates with 50 of them being females. All inmates were initially given the SCID-II measurement tool to diagnose the level of ASPD within the population. The prisoners' self perception scores showed cooperativeness, self-directedness and novelty seeking as their highest temperamental features and reward dependence as their lowest score, with no significant difference between males and females. This highlights the unreliability of self-appraisal, as individuals with ASPD tend to revert to manipulation and self-qualification. It would be interesting to do further studies investigating the same clients from the point of view of people who knew the respondents well, such as peers and staff in a therapeutic community, and to compare the results.

Neuropsychological Factors

The underlying cause of ASPD has been of great interest with research being undertaken to explore the role and impact neurobiology, genetic makeup, environmental factors, and neurotransmitter imbalances have on the development of ASPD (Fitzgerald & Demakis, 2007; Lilienfeld, 1998). Three main models have emerged in regards to the neurobiology of ASPD. These are frontal lobe dysfunction, integrated emotional systems and autonomic nervous system functioning. These models have mainly been formulated by testing executive functioning (EF) processes such as set-shifting and maintenance, working memory, interference control, maintenance, cognitive flexibility and response inhibition.

EF is the ability to shift the mindset quickly in a changing environment while not reverting to inappropriate behaviour. This ability allows individuals to create plans and engage in tasks until they are complete. EF is carried out by a number of different regions of the frontal lobes and in a wide network involving subcortical regions and thalamic pathways (Chudasama & Robbins, 2006; Heyder, Suchan, & Daum, 2004; Zeier et al., 2012). A number of tests can be done to check for EF.

There are inconsistencies across studies in the performance of ASPD individuals when compared to control groups on WCST measures such as set-shifting, planning and interference control. However ASPD individuals do consistently show deficits in response inhibition (Crowell, Kieffer, Kugeares, & Vanderploeg, 2003; Gillen & Hesselbrock, 1992).

Neurological studies with regard to ASPD and EF were very limited. This is evidenced by the fact that Morgan and Lilienfeld (2000) examined 39 studies conducted over a period of 60 years and only found three looking in to the relationship of EF and ASPD. In the first of these, EF was assessed among psychopathic clients, however I included the study because it used the DSM-III criteria for ASPD, and thus involved ASPD participants according to current criteria (Brito & Hodgins, 2009). The study involved 20 ASPD participants, 23 non-ASPD participants and 18 healthy students. They were given various tests of cognitive functioning and the results showed that that individuals with ASPD present defects in EF.

In the second study, Malloy, Rogers, Longabaugh and Beattie (1989) studied 182 alcoholic clients taken from outpatient programs with the aim of understanding general cognitive functioning. I included the study because the sample included a significantly high number of ASPD participants, 81%. The results showed that those with ASPD had poorer scores on some tests. Critically the study did not include any participants from prisons and the sample group had an over-representation of ASPD.

In the third study Gillen and Hesselbrock (1992) compared a community sample of ASPD individuals (N=34) to a without-ASPD group (N=57). After a number of tests the results showed that there was no significant difference in the test scores. However the ASPD clients demonstrated impaired motor responses, performed less well in the Wechsler Adult Intelligence Scale (WAIS-R) and had planning difficulties. Critically the study did not do any screening for Axis I disorders and did not include any women.

More recent studies have shown no group differences on the tests. Crowell, Kieffer, Kugeares and Vanderploeg (2003) examined the cognitive abilities and EF in a sample of Vietnam War veterans. The study involved 336 participants divided into four groups. Nil

difference was shown in the group responses. Similarly the study done by (Barkataki et al., 2005) compared violent men with ASPD (N=14) to schizophrenic men (N=13) and a healthy control group (N=15). EF was tested with several tools and again performance of ASPD individuals did not differ from that of healthy men. Barkataki and colleagues (2008) did a subsequent study with the same sample and discovered that ASPD individuals had an impaired response inhibition. However the sample size was very small and only involved men.

Gender and ASPD

Antisocial personality is seen more in men than in women. While the incidence of ASPD is lower in women, their response to treatment is poorer because of the severity of their symptoms and higher complex comorbidity with Axis I and II disorders. Women with ASPD have a higher prevalence of drug misuse when compared to men (Robins, 1991; Yang, 2007). Therefore it is important to consider both men and women when treatment outcomes are evaluated. Gender differences in treatment of ASPD will be further discussed in Chapter 5, in the context of co-occurring ASPD and addiction.

Violence, Self-harm and ASPD

Three studies of ASPD and violence towards others, involving 27,429 participants (Coid et al., 2006; Hodgins & Cote, 1993; Robins, 1991) showed conflicting results because of varied methodologies and data gathering. However there was a consensus that ASPD individuals are at a higher risk of committing violent offences. Robins (1991) estimated that 85% of those diagnosed with ASPD engaged in violence towards others, while a study carried out by Coid (2006) found only 50% of those with ASPD did so. Two different DSM versions – DSM-III and DSM-IV were utilised along with two different diagnostic procedures which may have contributed to the variance. A Quebec study found that among 461 prisoners, participants with ASPD had a similar number of convictions for violent offences as inmates without ASPD (Hodgins & Cote, 1993). Critically however the study does not distinguish between ASPD and psychopathy.

Mignone, Klostermann and Chen (2009) focussed their study on intimate partner violence (IPV) among clients in relapse of alcohol addiction, including ASPD males. The study involved 294 men from a variety of ethnic groups and concluded that relapse to non-severe violence was more prominent with those with ASPD diagnosis when compared to those without ASPD (but no criteria were given as to what was classed as non-severe violence as opposed to severe violence). Critically, the study did not consider the bias the partner who was reporting would have on the authenticity of the data.

Along with violence toward others, self-harm is an issue to be considered in the ASPD population. Martin and colleagues (1985) discovered that those with ASPD had a higher standardised mortality rate (SMR) than those with other psychiatric conditions (SMR=8.57, P=0.01). Black (1995) also discovered that young men with ASPD had a higher rate of premature death (SMR 33.0) but that this rate would diminish with age. The increased mortality was not only due to suicide, but was also due to risk taking and reckless behaviour such as drug overuse and aggression. An RCT study by Darke, Williamson, Ross, Teesson and Lynskey (2004) was undertaken with an aim to shed light on the relationship between ASPD, borderline personality disorder (BPD) and harm associated with heroin use. The study discovered that individuals with co-occurring BPD and ASPD were at higher risk of self-harm. Critically the study excluded individuals that had a prison conviction in the month prior to the study. This would have created a bias in the results, as the highest ASPD risk takers would likely have been eliminated from the study.

Other Variables to Consider

Ball and Cecero (2001) conducted a study with 41 participants from an outpatients methadone maintenance program who met the criteria for antisocial and other personality disorders. The study assessed the link between the severity of personality disorder and the personality trait, psychological problem constructs and maladaptive schema that are used to guide the implementation of the recently developed manual guided treatment approach. The authors identified that a personality disorder has many variables that come into effect when receiving treatment such as personality traits, ego strength, capacity for therapeutic alliance and severity of symptoms. It is important to consider these variables when planning treatment and evaluating treatment outcomes. In conclusion they recommend that knowledge and appreciation of personality traits in therapy and treatment is important and that early and sustained therapeutic attention is focused on the client's current symptoms and conflicts – this in turn helps to reduce relapse risk. It is interesting to note that in this study ASPD was not associated with entitlement or insufficient self control although they were found to be associated with greater psychiatric and substance abuse severity.

Treatment Options and Difficulties

A Cochrane review evaluating the potential beneficial and adverse effects of psychological interventions for people with ASPD highlights the lack of research in the field (Gibbon, 2010). It is a systematic review conducted by a team of researchers. Only 11 studies were found that met the inclusion criteria, and only two of these focused solely on

those with ASPD. The other studies had a subgroup of people with ASPD. The review found the most frequent co-existing Axis I condition with ASPD was substance misuse – men with ASPD were found to be three to five times more likely to abuse alcohol and illicit drugs that those without the disorder (Robins, 1991). ASPD itself was found to have the same prevalence in men as schizophrenia. The 11 studies included 14 comparisons of psychological interventions against a control condition (treatment as usual (TAU), waiting list, or no treatment). None of the studies evaluated therapeutic community treatment. Only one treatment approach, contingency management, showed promise for those with ASPD, in that offering rewards may help overcome treatment resistant characteristics. An interesting finding for the purpose of this review was that the presence of depression appears to allow the individual with ASPD to be amenable to psychotherapy even though sociopathy is present (Woody, 1985). Critically this study did not wait for the outcomes of a number of other research studies that were in process at the time, and which could have brought more clarity to the results.

Another systematic review is the NICE review (National Institute for Health & Clinical Excellence, 2010). This was commissioned by the National Collaborating Centre for Mental Health in UK and published by the British Psychological Society and the Royal College of Psychiatrists. It was commissioned for the purpose of forming National Clinical Practice Guidelines for the treatment of antisocial personality disorder. A systematic clinical literature review was conducted to identify relevant evidence and to formulate clinical practice recommendations. Where evidence was not available an informal consensus method was used to produce the guidelines. Evans (2010) comments on this review as follows: "the cupboard was essentially bare in being able to provide relevant evidence-based recommendations for service development" (p. 16). He states that the study merely highlights the lack of empirical evidence in the treatment of ASPD. There were no trials found that used therapeutic communities for ASPD individuals that met the criteria for the study. However there were three studies of therapeutic communities for drug users that met the eligibility criteria and some comments and guidelines were given on the basis of these. Cognitive behavioral interventions were recommended to reduce re-offending and therefore provide clinical benefits to offenders and net cost benefits to society.

Pharmacological Intervention

There is no pharmaceutical treatment for ASPD, however medication has been used to reduce the 'symptoms' of ASPD such as aggression and aggressive impulsivity, possible depression, anxiety and substance seeking behaviour (Khalifa et al., 2010). Khalifa and colleagues undertook a systematic review of control trials pertaining to the pharmacological treatment of individuals with ASPD. They reviewed eight studies with a combination of 394 participants and found that only three out of the eight drugs trialed were effective. The three drugs were nortriptyline (anti-depressant), bromocriptine (dopamine D1 receptor antagonist – shown to reduce anxiety), phenytoin (reduction of aggression – however did not reduce premeditated aggression). They reported however that the study quality was poor with inadequate reporting of analysis and results and the number of studies that met the inclusion criteria were limited.

The NICE review also investigated pharmacological interventions for individuals with ASPD on the rationale that some behavioral traits of the disorder may have a biological basis and therefore be linked to neurochemical abnormalities. The review found that pharmacological interventions were somewhat effective in the case of some traits such as mood dysregulation and impulsivity, but it was difficult to ascertain which of these traits could be attributed to ASPD and which relate to a co-occurring disorder. The reviewers concluded that pharmacological interventions should not be routinely used for the treatment of ASPD because of the possibility of poor concordance, high attrition, misuse of prescribed medication and drug interactions (including with alcohol and illicit drugs) (National Institute for Health & Clinical Excellence, 2010).

Modalities in the Treatment of ASPD

It is clear that ASPD is a complex disorder, which is often of long duration. Three promising treatment modalities have been identified through my engagement and training within a TC, and the research undertaken for this dissertation. These are Structural Analysis of Social Behaviour (SASB), Moral Reconation Therapy (MRT), and Mentalisation-based Treatment (MBT).

Structural Analysis of Social Behaviour (SASB).

Benjamin (1996a) describes five categories of therapist response to the transference reactions of ASPD individuals: "Therapy interventions can be evaluated in terms of whether they enhance collaboration, facilitate learning about patterns and their roots, block maladaptive patterns, enhance the will to change, or effectively encourage new patterns" (p.123) . Ordinary one to one psychotherapy does not reach a client with ASPD. The only

way to induce change is to coerce the treatment, as in treatment programs ordered by the court, or to provide strong inducement for the ASPD to remain in treatment and change. SASB is a technique developed by Benjamin over 30 years of treating clients with personality disorders. Using the SASB technique enables clinicians to assess where the client is positioned on a cluster model describing their personality construct and their relational stances. The profile thus gained can be used as a framework for clinical intervention. For clients with ASPD the indicators include active love (affection that is controlling and detached), control, blame, attach, ignore, wall-off, self protect and self neglect. Treatment based on SASB is aimed at improving the client's ability to identify with others. Other ways to encourage identification with the other that were suggested by Benjamin included using male sports heroes to establish connections with younger ASPD clients, putting the ASPD in the nurturant position by having them care for pets on the assumption that once the individual learns to care about something, socialization can occur, and providing structured outdoor experiences that enabled ASPD individuals to learn interdependence and self control. All of these can be achieved in the therapeutic community setting where individuals are encouraged to interact with each other as well as nurture the newcomers to the program by being positive role models. Since 1996 when this study was published a number of research studies have suggested that a less confrontational approach is more beneficial for ASPD individuals (Gibbon, 2010).

Moral Reconation Therapy.

Moral Reconation Therapy (MRT) is a cognitive behavioural treatment program that was designed by Little and Robinson in 1985 for offenders in the criminal justice system.

MRT is a set of instructions followed in conjunction with a workbook that aims to progressively address the underlying behaviours and attitudes associated with antisocial traits. The MRT system has 16 steps that progressively encourage the ASPD individual to observe their behaviour, their beliefs and their relational styles. The program allows individuals to work at their own pace and in an open-ended group, which allows new individuals to come in to the group at any point and experienced individuals to enter another group at the level they had reached. This allows clients to engage in treatment early and creates a holding environment, which addresses early drop out rates. It also helps individuals to connect with another group after they leave or discontinue treatment (Little, Burnetter, Stephen & Swan, 2010).

MRT is believed to be the most recommended cognitive behavioural treatment approach within correctional facilities in the USA. 120 studies have been published on MRT with a study time frame of 6 months to 10 years. Following up on each of these studies for the purpose of this review would be difficult and time consuming. However I have chosen a couple of studies that have reviewed the whole process of MRT, which support the contribution of MRT to treatment of ASPD individuals in TCs. MRT addresses the issue of early dropout from treatment. It has also been shown to improve the recidivism rates thereby leading to reduced reincarceration rates.

Little and colleagues published a study that was done with 1000 offenders on post-release recidivism (1999). The study concluded that MRT-treated offenders had a 50% reincarceration rate as compared to 65% of non-treated controls. Critically however it is difficult to ascertain what the reincarceration rates would be in the control group if they were given treatment. One sample group was subjected to a 20 year study. Results showed that 81% of the MRT treated group was reincarcerated after 20 years as opposed 94% of the controls (Little, Burnetter & Swan, 2010). To its credit this is one of the longest studies done on recidivism rates on a treated group. However the study does not compare MRT against any other therapeutic strategy.

Mentalisation-based treatment.

Mentalisation is the process in which we make sense of ourselves, and others, by implicitly and explicitly interpreting the actions of others or oneself. In a broader sense it is the capacity to understand the associations of feelings and behaviour stemming from a specific mental state, both in ourselves and others. Mentalisation was initially designed to work with individuals diagnosed with BPD however its core principles have been extended to treat those with ASPD. MBT stems from Bowlby's attachment theory (Bateman & Fonagy (Eds), 2012).

Two main principles are followed:

- 1. The only interventions that can be used are those that facilitate mentalisation.
- 2. Any interaction that decreases mentalisation or maintains non-mentalisation must be avoided.

MBT aims to bring about change by improving the capacity to mentalise rather than seeking to alter behaviour directly or give insight.

MBT takes into account the difficulty ASPD individuals have in interpersonal contexts. Since they are unable to mentalise, they judge those around them by external cues. As they do this while misreading their own internal state, it is understandable that at times

extreme reactions are seen. They experience a great level of distress when their control is challenged and can react in defensive violence as a survival mechanism. This defence of violence can be a result of insecure attachment from childhood. Reactive anger also has its roots embedded in trauma, as most of these clients have experienced childhood abuse (Bateman & Fonagy (Eds), 2012).

A number of MBT theorists believe that the biggest threat to the ASPD individual's internal state is the destruction of self-esteem. Most of them demand respect and control people around them so that they can maintain pride, prestige and status. They employ intimidation to maintain a level of control. It is easy to assume that an ASPD individual is calculating, unemotional and callous, however their behaviour can also be seen to be demonstrating a disorganised attachment and a strong avoidance of reliable attachment (McGauley, 2011).

It is important to note that ASPD individuals have an uncanny ability to read the inner state of others in a cognitive capacity, but lack the ability to identify with them empathically. Most use this ability to manipulate others as they have failed to develop any real understanding of their inner world and motives. In spite of their interpersonal difficulties, ASPD individuals do seek out relationships. Typically, they associate with those who are predictable in their relational style, for example gangs, which are organised along hierarchical lines with respect as the key component. These relationships do not demand mentalisation skills (Bateman & Fonagy (Eds), 2012).

Consequently MBT focuses on underlying emotional cues. Clients are taught the interpersonal process leading to understanding others' experience in response to oneself, thereby understanding motivations. They undergo education teaching them facial expressions, emotional cues, and non-verbal cues. As part of this the clients are also asked what they have observed in order to promote discussion about interactions and how they perceive situations. MBT takes people through the journey of first focusing on their internal state and how others make them feel, then getting them to make sense of other people's mental state (Bateman & Fonagy, 2008; McGauley, 2011).

Effective treatment not only improves the lives of ASPD individuals but also the lives of those around them. Unfortunately there are no published studies of MBT effectiveness on ASPD. However a number of studies have been done on MBT and BPD. One of these studies also included ASPD individuals. The results showed ASPD clients did in fact respond well to MBT (McGauley, 2011). However, adaptation of the basic model is required when

treating ASPD because they are over-controlling of their emotions, they tend to seek hierarchical relationships, and they threaten the hierarchy.

Further Treatment Approaches for ASPD

Cognitive Behaviour Therapy.

Davidson and colleagues (2009) carried out a randomised controlled trial of the usefulness of cognitive behaviour therapy (CBT) with a group of aggressive men with ASPD. The focus of the study was to obtain the effectiveness of CBT plus treatment as usual (N=25), versus TAU alone (N=27). Data was gathered at four intervals, 3 months, 6 months, 9 months and 12 months. The results showed that CBT had no significant effect on the outcomes when compared with the control group. The author goes on to say that a larger study is needed to further explore this result. Critically it can be said that the sample group was very small and at the final point of data gathering 20% of the CBT plus TAU group and 22% of the control group failed to show up. Also the study was not a fully blinded test and the researchers did not take extra precautions to reduce the risk of bias that could take place from clients acting out in response to having received different treatments.

Motivational Interviewing.

Woodall, Delaney, Kunitz, Westerberg and Zhao (2007) undertook a parallel randomised controlled trial to investigate the impact of motivational interviewing driven techniques on Driving While Intoxicated (DWI) offenders. The study is included because 52 of the 305 participants were diagnosed with ASPD. From this study Woodall and colleagues concluded that non-confronting treatment may improve the outcomes of DWI offenders with ASPD when treated in an incarcerated setting. However they reported no significant difference between the ASPD and control group in the reconvictions of DWI charges. Critically, the summary data was somewhat skewed as the authors reported no statistical difference in the mean number of days driving after drinking but went on to report a significant difference in the final data without commenting on how they had arrived at this result.

Psychodynamic therapy.

A systematic study of treatments in day hospital settings, providing intensive psychodynamic therapy, was conducted by McMurran and colleagues (2010). They concluded that there is no significant difference in treatment non-compliance between individuals with personality disorders (PD) and other client groups. Critically however they do not specify the make-up of the other groups. They were able to highlight that clients with ASPD were more likely to drop out from day hospital intensive psychodynamic therapy than

those classified with other personality disorders, but no explanation was given as to why these patients were dropping out in comparison to other personality disorders. The study also looked into therapeutic communities to obtain data for treatment compliance of ASPD clients however no discussion was available with regard to the findings of the review.

Pre-sentencing treatment.

Young, Fluellen and Belenko (2004) suggest that offering voluntary engagement in treatment pre-trial could improve the treatment outcome as opposed to probation or drug courts. They draw upon the empirical data that suggests when individuals are given the opportunity to engage in treatment prior to sentencing – with the understanding that if they do not complete the program they will be subject to full trial and conviction, they are more likely to remain in treatment, reduce substance use and reduce rates of recidivism. Young and colleagues discovered a higher retention and a lower criminal recidivism rate in clients engaging in drug treatment programs such as the alternative to prison (DTAP) programs and parole.

Therapeutic communities and ASPD.

TCs historically have had a significant impact on the treatment of psychiatric disorders in the second half of the 20th century, especially in the prison service and drug services (National Institute for Health & Clinical Excellence, 2010). Residential communities are seen as a key agent of change. Some of the benefits are related to social learning that takes place among peers, others relate to the hierarchical nature of the communities and reinforcement of desired behaviours. The duration of programs tends to be from 6 to 12 months.

TCs provide a complex psychosocial intervention for patients with personality disorders whereby the patients participate together in decision-making in matters affecting group functions. Patients are encouraged to take responsibility for their actions and use group interactions to explore and critique each individual's behaviours and underlying attitudes. Haigh (1999) states that there are five universal qualities of modern TCs. These five qualities are: attachment (sense of belonging), containment (safety), communication (openness), involvement (participation) and agency (empowerment). TCs serve a diverse range of clients.

One approach to treating ASPD individuals in community was adopted by Dr Glenn Shaurette in the 1970s and early 1980s in his ward at a veterans' hospital in Columbia. He found a way to meet patients with ASPD in his ward with their own position, blocking their maladaptive behaviours by having all staff on the ward act towards them in the same way. For the first few days the client was ignored, to mirror their 'wall off' stance, then the programs

were explained to them in terms of the punishments that would be received for failure to comply, to mirror the ASPD stance of blame. If the program were successfully followed the ASPD would see that there were steps towards autonomy he could take as he accepted control, and experienced protection and affirmation. This milieu treatment resulted in faster rates of discharge but unfortunately was not followed up with further study (Benjamin, 1996a).

Samuel and colleagues (2011) carried out a study to examine the impact of the 10 Axis II personality disorders (PDs) on early drop out rates (first 30 days in treatment) and the drop out rates within the nine-month treatment program. This study was included in this review as it establishes a number of conclusions relating to the treatment of ASPD clients within TCs. The study included both adolescents (N=49) and adults (N=77). Personality disorders were assessed using the Schedule for Nonadaptive and Adaptive Personalities (SNAP). This tool was given to all participants on admission and follow ups were done throughout the duration of the program. The results from this study indicated that 126 participants completed the initial 30 day assessment phase and 17 clients dropped out during that time. Of the remaining 109 participants, 81 failed to complete the nine-month program. So the author concluded that ASPD was a significant predictor in early drop outs. Interestingly however the study also concluded that if ASPD clients were able to get past the 30 day orientation period there was a great chance they would complete the program. They attributed this to the leadership qualities and the drive to succeed that are held by clients with ASPD. The author also commented that the varying drop out rates for ASPD could be due to inconsistent program lengths in the studies reported in the literature relating to ASPD. Critically it was difficult to determine whether the data collected was compared to a control group of clients without PDs. The author also fails to make a distinction between the number of adolescents who dropped out and the number of adults who dropped out.

Conclusion

In conclusion it can be seen that ASPD is a complex disorder and the lack of empirical data in the treatment of ASPD limits the options clinicians have open to them when planning treatment. The studies highlight the ineffectiveness of some treatment techniques that were traditionally used while pointing to new possibilities to be explored in the future. This conclusion is supported by the two major systematic studies, NICE and Cochrane reviews, which I referred to in this chapter.

Chapter 5 – Co-occurring Antisocial Personality Disorder and Substance Misuse

This chapter focuses on co-occurrence of ASPD and substance misuse. The majority of the study populations are found in the AOD (alcohol and other drugs) community. The studies examine links between ASPD and substance use disorder including gender and genetic factors. Finally the review looks at TCs as a viable treatment option for the ASPD and AOD population, in particular studies done in correctional facilities.

Co-occurrence

Research points to a strong link between ASPD and addiction (Kessler et al., 1997; Regier et al., 1990). Although a clear association between ASPD and substance addiction can be established what is unclear is whether or not ASPD is a by-product of addiction or vice versa (Gerstley, Alterman, McLellan, & Woody, 1990; Lehman, 1996). The characteristics displayed by those with ASPD and those with substance use disorder (SUD) are very similar and diagnosis of a true personality disorder is complicated by the present diagnosis of an SUD. It is important to distinguish between maladaptive behaviours and habits acquired as a result of SUD as opposed to those that are a result of an underlying personality disorder. The relationship between the two is complex with one possibly aggravating the other (Pettinati, Pierce, Belden, & Meyers, 1999; Walton & Roberts, 2004; Welch, 2006). Strong evidence suggests that conduct disorder (CD) in childhood precedes the development of ASPD in adulthood and independently CD is seen as a predictor of addiction (American Psychiatric Association, 1994, 2000; Cottler et al., 1998). This understanding is further supported by the fact that the DSM requires CD as a prerequisite for ASPD. A study undertaken by Hesselbrock (1984) concluded that individuals with ASPD have an earlier onset of alcohol use and more severe alcohol-related problems than alcoholics without ASPD. A later study conducted by Mueser and colleagues (1999) concluded that individuals with either childhood CD or adult ASPD were more likely to have substance abuse or dependent disorder later in life. Their findings also suggest that CD and ASPD are factors that independently increase an individual's vulnerability to substance abuse and dependency, rather than ASPD being a byproduct of substance use.

Mueser and colleagues (2006) also found that individuals with ASPD are more likely to have substance abuse disorder than similar individuals with no ASPD. They found a strong family history of substance abuse and dependency, more severe psychiatric symptoms, greater impairment in self-care, and aggression towards self and others amongst individuals diagnosed with the dual diagnosis of ASPD and substance abuse and dependency disorder. ASPD characteristics such as impulsivity, disregard of consequences, depression, anxiety and

inability to regulate and control their emotions can cause an individual to turn alcohol or drugs as a coping strategy (Walton & Roberts, 2004).

Bradizza and colleagues (2006) point out that further study is needed into personality traits in addition to diagnostic categories, as personality traits are associated with relapse. They also caution that it is important to clarify the definition of relapse. Firstly, abstinence needs to be achieved in order for relapse to occur; does relapse consist of only one drug or many? Is relapse a one off occasion or persistent? They recommend that diagnosis of ASPD be made 3-4 weeks into treatment, as behaviours displayed by an addict can be similar to behaviours displayed by those with ASPD. They recommend that those with just alcohol abuse or just drug abuse should be treated differently. They also encourage further research into the predictors of abstinence in these populations.

Verheul (2001) found that ASPD diagnosis numbers were similar in the substance abuse population as among those who had a past diagnosis of substance abuse disorder. Treatment of substance abuse disorder and abstinence was not associated with a significant change in personality pathology, therefore suggesting that the two disorders are not completely intertwined with the successful treatment of one disorder resulting in the successful treatment of the other disorder.

Prevalence of ASPD with Substance Use Disorder

ASPD is present in about 3 – 4% of the general population (Daughters et al., 2008). However it is more prevalent amongst those with substance use disorder (SUD), with ASPD being one of the most commonly diagnosed psychiatric conditions within the addiction field (Brooner, Kidorf, King, & Stoller, 1998; Forrest, 1994; Goldstein et al., 1996; Pihl, 2007; Welch, 2006). This dual diagnosis represents between 8% and 60% of those with ASPD in drug treatment samples according to several studies from varying countries and sample populations (Adamson, Todd, Sellman, Huriwai, & Porter, 2006; Brooner et al., 1998; Cottler et al., 1998; Daughters et al., 2008; Fernandez-Montalvo et al., 2006; Goldstein et al., 1996; McGovern, Xie, Segal, Siembab, & Drake, 2006; Pettinati et al., 1999).

McGovern, Xie, Segal, Siembab and Drake (2006) conducted a self-reporting survey undertaken by 450 addicts and treatment providers, and reported 18-20% of their clients were diagnosed with ASPD. Critically the study relied on the service providers to make the diagnosis, they did not provide a tool to use when diagnosing ASPD clients, and some staff were not clinically trained. Hence there could be a bias towards the labelling of ASPD in some individuals as addicts mimic some traits of ASPD without having the illness itself.

A study conducted by DeJong, van den Brink, Harteveld and Van der Wielen (1993) aimed to determine the prevalence of personality disorders in the addiction population. The study included 178 participants of whom 72% were male and 18% female. The study concluded that 48% of the population met the criteria of ASPD. Critically however, the study does not specify the tools used to determine the presence of ASPD other than to say that the researchers used a questionnaire. The study also highlighted two interesting points. Firstly, in the case of chronic behaviour patterns it is impossible to separate the effects of long-term drug abuse from those of personality disorders. Secondly, personality disorders and drug abuse reinforce each other. They concluded that addicts with personality disorders needed more confrontation, limit setting and structure as opposed to insight or criticism and would benefit most by receiving treatment within group settings.

A study by Kokkevi, Stefanis, Anastasopoulou and Kostogianni (1998) was undertaken in Greece. The researchers aimed to 1) provide a comprehensive assessment of personality disorders among drug users in Greece and 2) to gain an understanding of factors associated with having or not having a personality disorder 3) assess any psychological diagnostic changes after clients had engaged in treatment for four to six weeks, and 4) to investigate the impact of personality disorders on treatment retention and drop outs. The study concluded that participants with ASPD engaged in illicit drug use at an earlier age than those with other personality disorders. ASPD participants were significantly more likely to drop out from treatment, especially if they had a comorbid disorder from Axis I. They also concluded that participants with ASPD were more likely to demonstrate psychotic problems. Critically the researchers do not clearly define how the control groups were assembled and if all interviews followed a double-blind format.

Tools for Diagnosis of Co-occurring Disorders

It is important to note the types of tools used to diagnose ASPD, which in turn may influence results. For example the study carried out by Messina and colleagues (1999) used two different types of assessment tools, the Million Clinical Multiaxial Inventory-II (MCMI-II) and the Structured Clinical Interview for DSM (SCID-II). The MCMI-II estimated that 68% of the participants had ASPD whilst the SCID-II estimated 47% had ASPD. The MCMI-II consists of a self-reported list of 175 true or false questions designed to assess basic personality styles, personality disorders and clinical syndromes (Calsyn, Saxon, & Daisy, 1990). It is focused on capturing the underlying pathological personality traits to indicate whether ASPD is present or not. There has been reported good reliability and validity of the MCMI-II's assessment of ASPD within the substance abusing populations (Calsyn et al.,

1990; Millon, 1997). SCID-II can diagnose ASPD using primarily behavioural traits as measured in the DSM.

Genetic Factors

Krueger and colleagues (2002) state that mental disorders are often co-occurring and many studies identify genetic factors in the etiology of specific behaviour disorders and substance use disorders. Twin studies have begun to point to a common genetic link between ASPD and substance use disorder. The most extensive twin study was one carried out in Australia by Slutske and colleagues (1997). The study included 2682 adult twins who reported childhood conduct disorder and alcohol dependence. They stated that 76% of males and 71% of females were reported to have genetic influences that accounted for the observed association between alcohol dependence and conduct disorder.

Of interest as well were the adoption studies, which highlight how despite different environmental factors there remained a genetic link to antisocial behaviour and substance use disorder. Krueger and colleagues (2002) researched twin pairs male and female, 17 years of age who were born in Minnesota. The sample size was 626. All of the twins were interviewed separately by different interviewers using the DSM-III-R. The mothers were also interviewed. All interviewers had university degrees and had undergone extensive training. All twins with positive scores for ASPD and substance use disorder were reviewed. Structural equation modelling was used to determine the environmental and genetic structure of externalizing disorders and constraint. In the study males showed a greater chance of displaying ASPD and alcohol dependence, however females scored higher in drug dependence. It was found that ASPD, substance dependence and disinhibitory personality traits commonly co-occur. Co-occurrence was linked to inheritable externalizing factors however this did not account for all of the variances. The authors acknowledged that a larger sample study would be beneficial and concluded that there was not always a link to a specific gene polymorphism or to specific measured environmental variables.

Gender Differences in the ASPD and AOD Population

Goldstein, Powers, Cusker, Mundt, Lewis and Bigelow (1996) found that one of the most common personality disorders identified in substance abusers attending treatment is ASPD - at least 25% of males and 15% of female substance abusers match the DSM-III-R criteria for ASPD. It has been thought that substance abusers with ASPD have poor treatment outcomes, with poorer post treatment psychosocial functioning, continuing legal problems and relapse – however several studies have shown this is not always the case. Men and women with ASPD and substance use disorders tend to act out and respond in different ways.

Males are more likely to initiate fights, use weapons, engage in vandalism, not attend work and be neglectful. Females were more likely to manifest a disregard for truth and lack of remorse, behave irresponsibly as a parent and to run away and not always return. It is interesting to note there are less differences in presentation noted in the general population with those males and females diagnosed with just ASPD and not substance abuse in the areas of violence, employment problems, child neglect and lying.

Goldstein and colleagues (1996) studied the gender differences in those with ASPD and substance abuse in order to identify issues that may affect treatment planning. Participants in the study were enrolled from two different facilities – one was a modified therapeutic community the other a relapse prevention/health education program. In total 106 males and 34 females were included in the study. Females tended to be younger than males at onset of drug use. In childhood males reported more total criteria met for ASPD as compared to females however in adulthood females met more criteria for ASPD in total than males. They did not differ significantly however in their ability to sustain regular work, failure to conform to social norms and display of unlawful behaviour, irritability, disregard for the truth, aggressiveness or failure to maintain monogamous relationships. Males were more likely to be reckless, females were more likely to act impulsively, have less financial responsibility and show lack of remorse. Females were more likely to display irresponsible parenting. Both genders reported having failed to provide child support. While both genders were involved in illegal activities the nature of these activities differed with males more likely to be arrested more than once and for traffic violations and females more likely to engage in prostitution. Females were more likely to throw things at or hit a live-in sexual partner or their child. Males were more likely to have been in fights and used weapons with individuals other than their partners or children. However females tend to spend more time with their partners and child and so they are in their immediate proximity, and males tend to spend more time away from their partner and children resulting in their aggressiveness being taken out on other people. The results may be influenced by the type of patients attending residential treatment – males and females may enter for different reasons, for example a female may enter the program in order to work towards getting custody of her child back.

The limitation of this study is the sample size and small number of female participants – however the ratio of male to females is reflected in the general ASPD population. The data is also based on self-reporting in which the participants may choose not to be truthful, or have recall bias. The study concluded that treatment be aimed at addressing specific behavioural characteristics of those clients with ASPD and substance use disorder especially in regards to

gender differences, and addressing those issues that are more prevalent to each gender. The authors also recommended addressing parenting and childcare skills and getting children involved in the treatment process. This article is helpful in identifying gender differences however it does not suggest specific treatment options that could be recommended.

Comparison of Risk

Drake, Kaye and Finlay-Jones (1998) undertook a research project to examine the drug use and injection risks among incarcerated methadone maintenance (MM) clients with ASPD. The researchers compared this population to clients in the community-based methadone program. The study included 100 clients from the prisons and 183 clients from the community. Critically the study does not specify the ratio of men to women within the sample group nor the specific number of ASPD clients included. However it does say that 68% of the total population met the criteria for ASPD. The study concluded that the incarcerated clients injected drugs less frequently than those in the community but had a higher level of needle risk associated with their use when compared to the community clients. Significantly the study concluded that the diagnosis of ASPD played no role in either excessive drug use or needle sharing within the prison population.

Treatment

Co-occurring disorders provide a challenge to substance abuse treatment facilities, with higher rates of relapse and poor treatment retention. Bradizza, Stasiewiez and Paas (2006) hypothesized that ASPD and borderline personality disorder (BPD) are the most common Axis II diagnoses among men and women with substance use disorders. The high prevalence of these co-occurring disorders has generated further studies into the significance of ASPD and BPD and their effect on substance use and relapse.

Messina and colleagues (2002) studied 275 participants from the District of Columbia Treatment Initiative. The participants were randomly assigned to either a standard inpatient - which reflected TC treatment similar to that available in other TCs around the US, or an abbreviated inpatient program – which consisted of six months of inpatient care and then six months of outpatient care. Personal interviews were carried out and psychometric data collected. The SCID-I, SCID-II and MCMI-II tests were used. The MCMI-II testing did not occur until two weeks into treatment to allow for detoxification and stabilisation. The MCMI-II diagnosed 68% of the 275 participants with ASPD. Those with ASPD at a more severe level were more likely to have been arrested at a young age and have some form of criminal justice supervision. The presence of childhood antisocial behaviours and pathological

personality traits that would truly differentiate the ASPD clients from the non-ASPD clients was not studied at this time.

It was noted from this study in regards to treatment completion, recent drug use and post-discharge arrest there was no significant difference identified between those with ASPD and those without from both treatment programs. 42% completed the treatment and of these 38% tested positive for drugs in the follow-up urine samples and 47% had been arrested at some point post discharge. Those with ASPD were just as likely to complete treatment as those without ASPD. As time in treatment has been shown to result in better treatment outcomes, those who completed treatment were less likely to test positive for drugs. Clients with the MCMI-II diagnosis of ASPD who completed treatment reduced the odds of a positive urine drug test at follow up by 81% and reduced the odds of an arrest by 78%. As with previous studies completion of treatment regardless of diagnosis of ASPD was the most important factor resulting in positive outcomes. It has been noted in previous studies that African Americans tend to stay in TC treatment programs longer than in other treatment modalities. According to De Leon and colleagues (1993) the cultural norms of a TC program are often defined by the racial majority within the program. As this program consisted of residents and staff with cultural similarities within a familiar environment this too could have been a contributing factor to retention and resultant outcomes regardless of the diagnosis of ASPD. Generalisability of the study is limited due to the predominance of one ethnic group. Participants with and without ASPD had similar backgrounds making distinctions between the groups difficult. Those without ASPD may have tested positive for other Axis I or II diagnoses which in turn may have an effect on treatment and treatment outcomes.

Gil and colleagues (1992) found through their study of 55 consecutive methadone maintenance admissions with and without ASPD, that there were no significant differences in treatment outcomes between those with ASPD and those without. Furthermore Cacciola, Alterman, Rutherford and Snider (1995), in their study of 224 men with alcohol and cocaine dependency, found that participants with ASPD (34% of participants) responded just as well as those without and showed great improvement in the family and social domain. Even though this study was small the researchers concluded that diagnosis of ASPD should not predict treatment response. Compton et al. (1998) in their study of 333 cocaine users found that those with ASPD (34% of participants) responded to HIV risk reduction interventions just as much as those without ASPD. Brooner, Kidorf, King and Stoller (1998) in their study of 40 individuals with ASPD assigned to two different programs all showed reductions in drug use during their 17 week preliminary outcome evaluation.

Cooney, Kadden, and Getter (1991) carried out a two year follow up with 97 alcoholics. They found that patients who had higher sociopathy responded better with longer relapse times when treated using coping skills treatment. Coping skills treatment did not require the development of a strong relationship with a treatment provider or other group members but provided information to help gain skills to enhance coping and anger management.

Messina, Wish, Hoffman, and Nemes (2002) summarized a series of studies linking substance abuse and ASPD showing the relationship of ASPD to treatment outcomes. ASPD diagnosis among substance abusers ranges from 16-49%. There is a general consensus that individuals with ASPD are less likely to change their behaviours and more likely to relapse to both substance use and high-risk behaviours.

Therapeutic Communities as Treatment for Those with ASPD and AOD

Sacks and Sacks (2010) conducted studies to summarise and synthesize research on modified therapeutic communities (MTCs) within four different settings all with individuals with co-occurring disorders. The studies reviewed were firstly with homeless individuals, secondly with offenders, thirdly in an outpatient setting and lastly within the subgroup of people living with AIDS. They found that with all individuals MTCs responded to the multidimensional problems of persons with co-occurring disorders from a variety of settings and circumstances. From these studies significant changes in employability, criminal behaviour and psychological functioning were identified. It is important however for facilities dealing with clients with co-occurring disorders to include staff with both mental health specialists and psychiatric specialties. Funding, organisational structures or staffing may raise complications in terms of effectively treating those with co-occurring disorders. Staff trained exclusively in mental health or in substance abuse treatment models often have difficulty in accepting differing views in regards to co-occurring disorders, however an integrated model of treatment is needed and further education for staff provided. Also it is important to consider continuity of care, as this is very significant in maintaining positive changes and progress.

ASPD symptoms can be similar to those symptoms displayed by substance abusers, so it is important to ensure that an accurate diagnosis is reached and it is hypothesised that this will affect treatment and treatment outcomes. Goldstein and colleagues (1998) studied those within a residential addiction treatment facility and reported that those with child onset of

ASPD displayed poorer outcomes compared to those with adult onset ASPD, with those with earlier onset ASPD returning to drug use more readily than those with adult onset ASPD.

Messina, Wish and Nemes (1999) studied treatment outcomes for 338 predominantly cocaine dependent substance abusers who were randomly assigned to two TC programs – one ten months with two months outpatient treatment and one six months with six months outpatient treatment. Those with ASPD – 172 participants were compared with those without ASPD and follow up 12 months later was carried out. They found that those with ASPD were just as likely as those without ASPD to complete treatment and show reduced drug use and criminal activity.

Correctional Facilities as Therapeutic Communities

The importance of these studies is that although the majority of evidence available on TCs as treatment is related to people who misuse drugs and are in the criminal justice system, a significant proportion of this population (39-51%) are diagnosed with ASPD and all of them report behaviours associated with ASPD. The studies showed a reduction in offending among those who participated in TCs as a treatment for drug misuse. By contrast, TCs were not shown to have any impact on reoffending among people who were general offenders without drug misuse (National Institute for Health & Clinical Excellence, 2010).

It is stated that many offenders in the US have been identified as having mental health disorders, and three quarters of those with mental health disorders also have substance use disorders (McKendrick, Sullivan, Banks, & Sacks, 2006). In the US the criminal justice system has been looking at those with co-occurring disorders. ASPD is one of the most frequently observed – as mentioned previously these individuals demonstrate impulsive and irresponsible behaviour, which does not acknowledge the rights of others. They fail to conform to social norms and regulations and engage in unlawful behaviour resulting in grounds for arrest. It has been identified that among those in the general population with ASPD 29% had co-occurring alcohol use disorder and 15% had drug use disorder.

Typically those with ASPD are said to be hard to treat primarily due to the behaviours they display such as manipulation, dishonesty, and lack of self-reflection or remorse. Reid and Gacono (2000) state that the lack of self reflection and lack of anxiety about self results in the individual lacking motivation to change, which then limits the treatment a provider can offer to encourage retention which could result in the desired behaviour change. Studies now are beginning to show that there can be a positive outcome for those with dual diagnosis. Evidence has shown that if individuals with ASPD can complete treatment there is a more positive outlook.

The McKendrick, Sullivan, Banks and Sacks study (2006) took place within a correctional facility. Male inmates were randomly selected and placed in one of two groups – a modified therapeutic community or a standard mental health service to receive treatment. The MTC was located within the prison as a special unit and aimed at those with co-occurring disorders with programs to change behaviour, attitudes and lifestyle. The mental health program was also located within the prison in a separate unit and provided an intensified psychiatric service. It included the use of medication, weekly individual counselling and specialised groups. The program consisted of substance abuse education and relapse prevention. There were 139 participants, 50% of whom had a diagnosis of ASPD. Of those with ASPD 91% had a further Axis I mental health diagnosis and 96% had an Axis I substance abuse/dependence disorder (based on DSM III-R and DIS IV). Due to randomisation 55% of those with ASPD were allocated to the mental health group and 45% were allocated to the MTC group. Self-reporting systems were used. On comparing participants' profiles, those with ASPD were more dysfunctional, and had greater difficulties in areas of education, employment and residential stability. They were more likely to have been raised by a single mother or to have lived with someone other than their biological parents growing up and more likely to have been abused or to have experienced trauma before the age of 16. Drug and alcohol use was more severe with those with ASPD and they were more likely to have received prior treatment for substance use disorder and to be less motivated for treatment.

A review carried out 12 months post participant release showed that overall, regardless of whether participants had ASPD or not, those who received treatment in the MTC had a more positive outcome in terms of re-offending and number of days where the participant used drugs or alcohol or became intoxicated, than those who received mental health treatment, and used less variety of drugs and fewer illegal drugs. Thus this study showed that when individuals with co-occurring ASPD and substance use disorders completed a treatment program within an MTC they did show signs of improvement and reduced use of substances. It was identified that regardless of substance use severity those who completed treatment through the MTC still showed progress. As previous studies have found, those with ASPD showed less motivation for treatment however although their motivation was low at the start, during later stages these individuals still displayed noticeable behaviour change. Furthermore although the time in treatment has been related to positive outcomes, Mckendrick and colleagues (2006) suggest that it is not just the time spent in

treatment that has a positive effect but it is the type of treatment carried out that is of more importance.

The limitations of this study are the sample size and the fact that at the 12 month review there was a lower rate of data collected for those who had treatment in the mental health group as opposed to those who were treated in the MTC. Again this study was based on self-reported information.

Length of Treatment and Outcomes

TCs are potentially effective in the psychosocial treatment of substance use, unemployment, criminality and other issues experienced by those with addictions. Several studies have shown sustained improvement following completion of TC programs typically after 6-12 months (Samuel et al., 2011). As discussed by previous authors retention in treatment is the most stable predictor of positive treatment outcomes. However it is common within TCs to have a large percentage of clients drop out of treatment within the first month, and a further percentage to drop out within the following months leaving an average retention rate of only 10%. It is therefore important to look at what affects retention rates.

On review of the literature the most common personality disorders found in the addicted population were ASPD and BPD. These disorders were associated with early drop out rates and poor treatment outcomes. Samuel and colleagues (2011) state that TCs are specifically designed to address the behaviours, attitudes, personality problems and criminogenic problems associated with those individuals with ASPD. However research results in terms of retention of those with ASPD within TCs are inconsistent. For example Goldstein and colleagues (1998) found that those with ASPD who completed a long term program of 180 days showed poorer retention rates compared with those in a 90 day program. Messina and colleagues (1999; 2002) found that those who were diagnosed with ASPD using the self-reported inventory or semi-structured interviews showed results in terms of program retention were unrelated to their ASPD diagnosis. Furthermore Daughters and colleagues (2008) in their study of 236 male TC patients found that ASPD status on its own did not predict retention – it was the interaction of a court mandate and ASPD that predicted early attrition. More study is needed in this area.

Samuel and colleagues (2011) studied adolescents and adults who met DSM-IV diagnosis for substance abuse or dependence. Participants who could not read were excluded along with those having severe mental health disorders and those who were suicidal. Gift cards were given to participants who completed baseline assessments and follow up assessments. Participants were enrolled in a nine month TC program. A majority reported

alcohol abuse as predominant addiction, with stimulants, opioids and cannabis rating 33% and under. ASPD was diagnosed using the Schedule for Nonadaptive and Adaptive Personality (SNAP) and of the participants 30% were diagnosed with ASPD. There were 126 participants who completed the baseline assessment. 14% dropped out in the first month, and of the remaining participants a further 64% did not complete the program. Individuals with ASPD, histrionic and paranoid PDs were more likely to drop out within the first 30 days of treatment. The characteristics of ASPD such as competitiveness, assertiveness and independence may lead to the difficulty of accepting rules and regulations enforced within the TC, which may lead to early drop out. However these same characteristics could enable the individual to succeed if they remain in treatment. The limitation of this study is the number of participants, and the use of the SNAP assessment to diagnose ASPD, which is a self-reporting assessment. The gender imbalance within the sample group did not enable gender differences in response to treatment to be explored. There was also a wide age range 15yrs to 65yrs, so age may have been a contributing factor to early drop out however this was not explored.

Messina, Wish and Nemes (1999) in their study found a 40-50% prevalence rate of ASPD in male substance abusers and approximately 90% of those with ASPD have substance abuse disorder along with being criminal offenders. 412 participants who had been ordered by the court to receive treatment were randomly assigned to either a standard or abbreviated inpatient residential TC. Interviews were carried out. The Individual Assessment Profile (IAP) was used which provided detailed information on drug use and demographics. 49% of participants assigned to each program had a SCID diagnosis of ASPD. This study found that there was no difference between those without ASPD and those who had diagnoses other than ASPD in terms of outcomes. As found in previous studies participants diagnosed with ASPD were more likely to be male, of a younger age, less educated, had more frequent arrests and were younger at first time of arrest, more likely to have multiple drug dependencies and more likely to have used substances at a younger age. There were no differences identified in regards to ethnicity, marital status, employment, or any other psychiatric disorders. Approximately one quarter of those with ASPD also suffered from depression. Participants diagnosed with ASPD did display more deviant behaviour as compared to those without ASPD. There was no statistically significant difference between those with and without ASPD in regards to treatment completion, drug use at follow-up and post discharge arrest. These results were similar in both programs. Participants with ASPD were just as likely as those without to complete treatment. Older participants and those under some form of

criminal justice supervision were more likely to complete treatment. The presence of other disorders with or without ASPD made no statistical difference. There was no significance in outcomes noted whether participants with ASPD were assigned to Standard or Abbreviated treatment. The duration of treatment may have an effect on outcome however this was not formally tested.

Conclusion

In this chapter I have reviewed major areas to be considered when treating individuals with co-occurring ASPD and addictions. These are prevalence, diagnostic tools available, genetic influences, gender differences in presentation, and risk taking behaviours. Co-occurring disorders present a challenge to treatment. The studies vary in their findings as to whether outcomes differ significantly where there is a dual diagnosis. TCs provide a holistic treatment for those with ASPD and addiction. It has been identified from the literature that TCS for addicts with ASPD provide a more effective form of treatment resulting in more positive outcomes.

Chapter 6 - Discussion and Conclusion

Are therapeutic communities designed for the treatment of substance dependency effective in treating individuals with the co-occurring disorder of ASPD? In this chapter I endeavour to answer this question by reviewing, synthesising, and critiquing the theoretical and research literature exploring the associations between ASPD and addictions, then the use of therapeutic communities in treatment.

ASPD has been a problematic illness to diagnose and treat since the 19th Century. Even though much research has been done, as yet no definitive treatment has been found. From its initial recognition until now both diagnosis and treatment options have gone through a raft of changes. The DSM has described ASPD as a pervasive pattern of disregard for and violation of others occurring since the age of 15, however this has failed to capture the underlying personality structure, leading to confusion when it comes to providing effective treatment. There is uncertainty in the literature which elements to focus treatment on.

The studies that have been undertaken, however, have led to a number of improvements when engaging with these individuals. In this chapter I will synthesise these findings and suggest a new combination of treatments for those with co-occurring ASPD and addictions.

What the Literature Suggests About Co-occurring ASPD and Addiction

The studies reviewed suggest that 10.8% to 71% of individuals receiving treatment for addiction have a diagnosis of co-occurring ASPD. Higher percentages occur in prison settings. Genetic, hereditary and environmental factors have all been identified as contributing to the co-occurrence of the disorders.

The dual diagnosis of ASPD and addiction complicates treatment because of the increase in the negative behaviours displayed by these individuals. These behaviours include: aggressiveness, manipulation, deceit, violence, irresponsibility, impulsivity, susceptibility to boredom, inability to delay gratification, inability to plan, engagement in criminal activities and unconsequential thinking (risk taking) (Brooner et al., 1998; Darke et al., 2004; Paris et al., 2013; Sargeant, Bornovalova, Trotman, Fishman, & Lejuez, 2012). A majority of research in the past has offered a poor outlook and poor outcomes for these individuals, due to the above mentioned behavioural difficulties which result in poor engagement and retention in treatment (Brooner et al., 1998; Cottler et al., 1998; Darke et al., 2004; Paris et al., 2013; Pettinati et al., 1999; Sargeant et al., 2012; Verheul, 2001). Individuals with ASPD tend to regularly drop out of treatments and re-engage with criminal activities and drug use (Brooner et al., 1998; Daughters et al., 2008; Pettinati et al., 1999). They lack the motivation needed

to stay in treatment for long enough to achieve full benefits, and their impulsivity is a high predictor of treatment failure (Sargeant et al., 2012). Because of the varying lengths of programs in the studies, the drop out data can be skewed leading to the belief that these individuals are not treatable. However, new research does show that if an ASPD individual is able to get through the orientation period of treatment they are more likely to complete treatment thereby increasing their chance of better life outcomes (Samuel et al., 2011). As most of these clients find it difficult to live within a contained environment for long I believe that effective treatment would be around five months as opposed to 12 months as suggested by most theorists.

Individuals with ASPD are also not often aware of how they come across to others, with limited control of their feelings and reactions. This makes it hard for them to maintain social interactions (Pemment, 2013). This in turn may influence patient management and staff's view of potential treatment response. The characteristics displayed by those with ASPD can often result in the inability to form a positive therapeutic relationship or alliance (Brooner et al., 1998; Pettinati et al., 1999; Verheul, 2001).

Brooner and colleagues (1998) state that the forms of studies carried out with those with ASPD and addiction were often verbal-expressive forms of treatment, which compared those with ASPD to those without. They state that these forms of treatment are not catered to deal with those with ASPD, with many treatment centres not acknowledging the co-occurring disorders. Therefore treatment is not beneficial and has poor outcomes because the form of treatment used is not developed to deal with the characteristics and behaviours of those with ASPD. However that does not mean that other forms of treatment will be ineffective.

Treatment in the past has been generalised, verbal and often based on attaining a strong therapeutic relationship, which is not always achieved with ASPD clients (Brooner et al., 1998; Pihl, 2007). Benjamin (1996a) actively encouraged non-engagement with these individuals in the initial stages of treatment, as she believed this, in turn, makes them more aware of their own behaviours. However Benjamin does acknowledge the need for more of a multi-disciplinary approach because she does recognize there can be more than one illness occurring.

Treatment Studies

There has been an increasing recognition of co-occurring disorders and their treatment. Recent studies acknowledging the significant impact of a dual diagnosis of ASPD and substance abuse have led to the exploration of different forms of evidence-based treatment which accommodate and address the needs of those with ASPD and addiction and these studies are showing positive results and outcomes (Brooner et al., 1998; McGovern et al., 2006; Welch, 2006).

Eighteen studies were reviewed with various treatment outcomes for those with ASPD and addiction. Although varying forms of treatment were offered, all reported some positive changes as a result of treatment, with fewer significant differences identified in regards to outcome when comparing those with ASPD and those without. Factors that emerged as significant were the need to address core personality organisation rather than simply manage symptoms (Duggan & Khalifa, 2007), to ensure that treatment is non-confronting and, in court-ordered settings, to give the client the option of engaging in treatment as opposed to doing probation or drug courts (Young, 2004). The use of contingency management was seen as effective in one study (Gibbon, 2010). Time spent in treatment and completion of treatment were the most important.

Gender Differences to be Considered

The limited literature on gender differences and treatment of females with ASPD emerged as an issue – their treatment might need to be different because though they are fewer in number their presentation of illness is more severe than that of males (Goldstein et al., 1996). When planning treatment the gender of the individual should be considered. Literature shows that more men are diagnosed with ASPD and AOD than women and most of the research is done on male participants. No research on treatment options for women was uncovered. Most treatment providers treat both genders in a similar way even though the outworking of the illness is quite different, for example females show different patterns of aggression and may have quite different motivations for entering treatment programs. Even though the prevalence is higher in men the presentation of symptoms tends to be more severe in women.

Diagnostic Tools and Staff Training

Further complications in the diagnosis of individuals with co-occurring ASPD and addictions are the unreliability of diagnostic tools and the lack of trained staff to administer the tools. In Chapter 4 I reviewed a study by Fernandez-Montalvo and colleagues (2006) that demonstrated the inconsistency of diagnosing ASPD individuals based on the tools used. The self-reporting tool was seen to produce a higher prevalence of ASPD than the one administered by clinical staff (Cottler et al., 1998). Most of the studies included in this review utilised self-reporting tools therefore it is difficult to determine the accuracy of the data collected. These inconsistencies make it difficult to draw conclusions for effective treatment. A further difficulty is the use of untrained staff in gathering data for the studies. Untrained staff may not be able to recognise features of ASPD and possible comorbid conditions, which means data on the prevalence of ASPD individuals may not be reliable. As highlighted earlier Gabbard (1994) speaks of guidelines that staff need to abide by when working with these individuals, incorruptibility being the most valued trait.

The Ineffectiveness of One to One Therapy without a Good Holding Environment

Gabbard (1994) predicts that individual psychotherapy will be doomed to failure for ASPD clients because there is no contained environment in which to observe and control their behaviour. This belief is supported by earlier studies conducted by Malloy (1989) and Woody and colleagues (1985). Gabbard makes the point that the lack of relatedness is the most negative predictor of psychotherapy responses in this client group. He in fact encourages clinicians to be comfortable in recommendations for no treatment when dealing with such individuals. He gives some recommendations if a therapist decides to work with an ASPD client on a one to one basis. The therapist must be stable and entirely incorruptible, the therapist must confront the ASPD individual's denial and minimisation of antisocial behaviour. The therapist needs to encourage the patient to connect his actions with his internal states. Confrontation of here and now behaviour is encouraged as opposed to interpretations of unconscious situations from the past. The therapist's own counter-transference must be monitored while not having excessive expectations of the client. All of these recommendations can be implemented in the context of therapeutic communities (Gabbard, 1994).

Therapist Countertransference

Gabbard (1994) highlights three common countertransference reactions which are disbelief, collusion and condemnation. Disbelief occurs when the clinician attributes the antisocial behaviours to circumstances beyond the client's control, for example drug abuse and childhood trauma, rather than to some innate motivation. Collusion is seen as one of the more problematic countertransferences in which the therapist aligns with the client's victim stance thereby giving in to the client's demands. Condemnation is a common countertransference reaction in response to the past behaviours and actions of these clients. Acting out in this transference would recreate the abusive relationships ASPD individuals would have had with their parents or caregivers. Added to this Malloy (1989) writes of the fearful countertransference, which prevents clinicians from implementing a firm structure.

Community as a Method for Treating Those with Addictions and Antisocial Personality Disorder

The concept of community as a method refers to individual change being brought about through engagement with the surroundings. The TC environment can facilitate social learning as well as psychological change. Through engagement, awareness of behaviour, emotions and thinking processes can be developed. The community maintains a certain code of conduct that is designed to challenge selfishness while promoting supportive relationships with others to achieve the common purpose of healing. For a therapeutic community to function as an agent of therapeutic change a number of elements are required: 1. An environment that is commonly shared. 2. A set of values and norms that are shared. 3. A public forum for interpersonal dialogue. 4. Self help and mutual help as a mode of treatment (Perfas, 2012).

Therapeutic Communities have been identified as one of the most effective forms of treatment for those with ASPD and substance use disorder (SUD). Significant research has identified that in order to effectively treat those with ASPD and SUD, treatments that specifically address the characteristics and maladaptive behaviours displayed by those with ASPD are needed in order for treatment to have some effect (Goldstein et al., 1998; McGovern et al., 2006). TCs are ideal for this form of treatment as they are highly adaptable and are able to address and deal with the specific behaviour characteristics of those with ASPD. Not only are they able to provide supports to deal with and address the addiction issues, they are able to help with basic things such as activities of daily living and skill development which may have been neglected by these individuals in the past (Goldstein et al., 1998; McGovern et al., 2006; Sacks et al., 2008). TCs are able to be modified and

incorporate differing forms of therapy which have been shown to produce a more positive result in those with ASPD (Sacks et al., 2008; Welch, 2006). This study incorporated findings from the Cochrane review, NICE guidelines and nine other studies pertaining to the use of TC in the treatment of individuals with ASPD and addiction. All of the studies identified a significant number of individuals with ASPD within the addicted population. Positive outcomes were identified. Further, in a study by Magor-Blatch and colleagues, changes in personality were noted as well as changes in substance-seeking behaviour (2013).

One of the difficulties in treating ASPD clients is their lack of honesty and their drive to look after themselves above anyone else. This is also seen with addicts. Features of the whole community such as member rules, member feedback, members as role models, relationships, collective learning formats, culture and language, structure and system, open communication and individual balance, are conducive to containing and addressing this behaviour (De Leon, 2000; De Leon, 2010; De Leon & Schwartz, 1984).

Fundamentally the healing in the TC takes place in the compelling power of the community, groups and staff functioning together as one. Bateman and Fonagy (2012) point out the importance of staff working together and in harmony when providing treatment. TCs take a very practical approach to highlighting human behaviour through human interactions. The basic belief of the TC is that human learning occurs in a context that includes the characteristics of the person, the person's behaviour and the environment in which the behaviour takes place.

Establishing the Environment in the TC

Behaviours such as manipulation, aggression, impulsivity, dishonesty and self-protection are common to both individuals with ASPD and addicts. ASPD individuals and addicts who come in to therapeutic community are well versed in manipulating the system to gain an unfair advantage. TCs established to work with addicts understand this and have systems in place to deal with such manipulation. Staff are expected to be the final authority, support the senior residents with holding the ground rules of the therapeutic community, and to hold regular meetings while being professional in their engagement with the clients, without being overdominant. For the TC to be a place of healing the atmosphere must be safe at a physical and emotional level. The setting must encourage individuals to take responsibility for their actions and choices while dismantling their past practices of 'see no evil, hear no evil' or attitudes and behaviours from jail culture. TCs are designed to develop prosocial behaviour and trust-based relationships (De Leon, 2000; Deitch & Solit, 1993).

Another aspect of the TC environment is the use of behaviour shaping tools such 'pull-ups', reminders, peer behavioural interventions, morning meetings, encounter groups, house meetings and general meetings which are used to correct behaviour that violates the TC norms. These aspects support the treatment of ASPD, for example 'pull ups' can be used to point out areas in which antisocials are not following the rules and other areas such as group meetings can be used to reset the dynamics that may have been upset by the antisocial individual's maladaptive behaviours in the area of power. These tools used in the spirit of healing can ensure an increase of awareness and accountability in residents within a TC. Also by encouraging individuals to notice others' behaviours for the purpose of bringing about positive change, TCs allow individuals to learn to take care of those around them without having an ulterior motive. However this needs to be monitored as ASPD individuals will use any opportunity to con the system, and staff along with other residents need to monitor their use of power. The main purpose of behaviour-shaping tools is to manage particular behaviours however to gain lasting change the principles must be internalized by the individual. To this end insight must be achieved to gain understanding of the necessity of behaviour changes. As part of enabling insight to come, TCs provide counselling to explore motivation and other issues relating to drug use and antisocial behaviours. I believe staff working under an MBT model will help clients in gaining more insight by encouraging them to mentalise (Bratter et al., 1993; Rawlings & Yates, 2001; Tims et al., 1994).

Discussion of Modalities

The following modalities have been identified as those which improve treatment outcomes for individuals with ASPD, and can be incorporated into TC approaches.

Structural Analysis of Social Behaviour.

Since the publication of Benjamin's book a number of research studies, two of which I included in my review, suggest that non-confrontational techniques are more beneficial in working with ASPD individuals. This line of thinking is also supported by mentalisation-based treatment (MBT) as this model encourages mentalisation by avoiding anything that prevents this taking place, for example punitive interactions. In MBT the power of the ASPD individual is not challenged early on in treatment prior to a safe environment being established. This idea is also backed up by the research that suggests that it is more beneficial for individuals to complete treatment programs rather than be discharged early on. However Benjamin does highlight the point that ASPD individuals are manipulative and have issues with power that need to be challenged, and points out that if this does not occur they are unlikely to achieve meaningful change. Also by having their interpersonal interactions

highlighted, they are given more insight into the effects they have on others and also the cost this incurs on themselves. Not only that but when staff take the power role and push the ASPD individual into the powerless role, there is an opportunity for ASPD individuals engage with their vulnerabilities and face their history of powerlessness (Benjamin, 1996a).

Moral Reconation Therapy.

I have been facilitating a number of MRT groups as part of the Drug Courts initiative in New Zealand and prior to this I was given training by the founder Ken Robinson how to run such a group. In my experience and that of my colleagues I have noticed that MRT does not facilitate much inside-based change as most of the work is focussed on cognitive identifications and achievements. Even though data shows a positive improvement in recidivism rates with MRT it is difficult to say there are improvements in interpersonal relationships based on the fact that no insight-oriented work was done. This is why I believe that MRT alone is not capable of treating individuals with ASPD and why I have incorporated this as only one aspect of treatment within a TC. I do however see the importance of these individuals gaining understanding of their behaviour and the need for change, and MRT plays a vital role in achieving this. Also research shows that most drop outs take place within the first 30 days of treatment and MRT treatment can help to improve this, because MRT studies show there are high completion rates of the treatment program and the individual can join the group at any point, creating a good support network for them to connect to (Samuel et al., 2011). It is acknowledged by MBT theorists that individuals with ASPD find it easier to connect with individuals of a similar background, as they know the relational structure they will encounter.

Mentalisation-based Therapy.

MBT programs do not challenge the self-esteem of ASPD individuals in the early stages of treatment. This is in contrast to the argument that these individuals need to be challenged in the hope of highlighting their dishonesty and manipulation (Benjamin, 1996a; Gabbard, 1994). It remains to be seen if MBT provides enough structure for ASPD individuals to adjust their behaviour so they can engage in suggested mentalisation-based interactions. In MBT there is no recognition of the propensity of these individuals to manipulate systems to have their needs met, such as getting a reduced sentence. Therefore it has been suggested that ASPD individuals should not receive any special treatment in the first few months of the treatment. Regardless of this suggestion we still do not know if there is enough containment in this structure and more studies need to be done.

Cognitive based treatment therapy was not found to have a significant effect in one study (Davidson et al., 2009) but this finding contradicts a number of theorists who argue for the effectiveness of CBT treatment for ASPD. It is important to note that Davidson's study was not based in an inpatient unit hence the holding given to these individuals would have been very different, and there was no information as to whether or not the approach included non-confrontation, addressing core issues, or clients being given a choice of treatment. In summarising these studies what is becoming evident is these factors result in more positive treatment outcomes. It is important to note however that although research is now showing there is hope for treatment of those with dual diagnosis of ASPD and substance use disorder there remain studies that show that the potential for clients with ASPD to relapse after treatment is high (Sargeant et al., 2012; Verheul, 2001).

Suggested Clinical Guidelines

Perfas (2012) gives five areas needed in a TC: Screening assessment and referral, treatment plan, treatment issues and approaches, issues related to program development, specialised areas for staff training.

- 1. Screening assessment is the first step in identifying the issues related to an individual wanting to enter a TC treatment program. A thorough assessment will identify clients' needs and lead to an informed treatment strategy. The assessment should assess clients' readiness for change and willingness to engage in treatment. During this process clients should also be tested for Axis I as well as Axis II disorders as research has shown that overlooked co-morbidity leads to a poor treatment outcome (Hunter et al., 2005). Also all clients engaging in TC should be tested for ASPD as it would help in placing these individuals in the right element of the program. A clinician should administer the screening tools.
- 2. Treatment planning refers to the process of using clinical information gathered as a basis for planning treatment. At this stage information about individuals' comorbid issues needs to be discussed and plans need to be put in place to address these issues. Research from this study has shown that individuals with ASPD in combination with BPD, narcissism and substance use disorder require specialist treatment and attention to manage their disorder. The gender of the person should be taken into consideration when planning treatment as discussed earlier.
- 3. Treatment issues and approach refers to the implementation of the treatment planning. An individual with ASPD requires a specialised focus in dealing with the disorder hence I have proposed a combination of treatment that needs to be

implemented within the therapeutic structure. As research has shown completion of treatment is one of the key components of recovery. However in the initial stages of orientation these individuals have low motivation to engage, especially if they have been coerced into the program through the correctional system. Even though this can be a poor start, long term engagement in the program will still foster change that is beneficial, so the treatment for these individuals is to focus on corralling them and holding them until they overcome the initial period of orientation. After orientation is achieved research has shown that completion of treatment for these individuals is at the same level as those without ASPD except when they have a comordid disorder of BPD. Therefore it is important that these individuals engage with MRT at early stages. This will encourage them to stay connected and gain orientation with minimal disturbance. MBT treatment will ensure their power is not challenged too early on in the treatment as well as them not being shamed, so that they are more likely to stay in the program. MBT in contrast to SASB encourages therapists to apologise to the clients immediately if they become aware that they have inadvertently acted in a patronising or condescending way, in order to restore the power differential, because patients feel safer if they experience the therapist as someone who can follow as well as lead, and someone who can make mistakes.

While establishing and creating a safe environment TCs also need to hold individuals accountable for their interpersonal behaviour, hence the TC needs to encompass a number of aspects. I have discussed these in Chapter 4 however I would like to review here the main characteristics of SASB, which are recommended for an effective approach - the attributes of dominance and warmth, which are crucial to the development of socialisation. I propose that this is held within the hierarchical structure of the community rather than by individual therapists. Recently the research showed that ASPD individuals lack the ability to trust others based on the trauma in their childhood therefore it is important that any challenging of their behaviour and pointing out the defects of their interpersonal reactions is done in a manner that induces understanding and insight. MBT facilitates insight through increasing mentalisation hence therapists need to be responsible to create interactions that are conducive to mentalisation. Therapists' stance is seen as key in encouraging individuals to gain mentalisation by holding an attitude of honesty, authenticity, directness, respect and courtesy, and therapists are

also encouraged to treat the clients as adults who are responsible for their actions.

Along with MBT the three pillars of trauma-informed care proposed by Barth in 2009 could be utilised within the therapeutic community (Perfas, 2012). The pillars include safety, connection and teaching clients of emotion regulation and impulse management.

- 4. Issues related to program development. The program should encompass a model that accommodates addiction treatment as well as the treatment of ASPD in conjunction with criminal justice services because most ASPD individuals are court directed and treatment should not allow collusion to escape from the penalty that is being enforced for their actions. However one of the articles states that when individuals are given the option of engaging in treatment as a way of reducing their sentence combining treatment with the case management system improves the outcome for these clients (Young, 2004).
- 5. Specialist areas of staff training. ASPD clients have a history of severe trauma and other developmental issues that have led to antisocial behaviour. Staff therefore need adequate training to manage these issues in a way that does not evoke the shame of these clients before therapeutic safety is established as well as not acting out on the counter transference. Areas suggested by Perfas (2012) for staff to be proficient in are criminal thinking, relapse prevention, trauma and substance abuse and co-occurring mental disorders.

Study Strengths and Limitations

The review undertaken has a number of limitations. Firstly, the studies reviewed relate only to western cultural contexts, so the results cannot be applied globally. As well as this, the research so far suggests that female ASPD clients have more severe symptoms, but most of the participants in the studies reviewed were male. There is limited research in the literature on female addicts with ASPD. Further, a number of researchers were unsure of what outcomes to look for because the DSM criteria were behaviourally oriented rather than identifying the underlying personality structure. Finally, most of the studies had low numbers so the results cannot be generalised, and the tools used showed inconsistent results which also made it difficult to generalise the findings. In general it was found that there is a lack of research on TCs globally, and no studies on TC were found from New Zealand which related to treating individuals with ASPD.

In spite of the difficulties and limitations, I was able to draw on a range of theoretical literature as well as other studies relating to TCs such as prison based programs, and I found enough evidence in the literature to suggest that TCs can provide an effective treatment and improve outcomes for addicts with ASPD. A strength of the review is that it investigated a previously poorly researched combination of factors – addiction, antisocial personality disorder, and therapeutic communities. It appears to be the first study of its kind in New Zealand. A further strength is that the author is actively engaged in the field that is being studied and I have been able to use the results to guide me in constructing a model of best practice.

Research contexts

For this review I researched the following topics and found studies by the authors noted:

ASPD and addiction, (Adamson et al., 2006; Ball & Cecero, 2001; Darke et al., 2004; Fernandez-Montalvo et al., 2006; McGovern et al., 2006; Pettinati et al., 1999; Verheul, 2001), ASPD and addiction treatment outcomes (Ball, 2005; Brooner et al., 1998; Cacciola et al., 1995; Compton et al., 1998; Cooney, 1991; Daughters et al., 2008; Davidson et al., 2009; Drake et al., 1998; Gil et al., 1992; Havens & Strathdee, 2005; Kokkevi et al., 1998; McGovern et al., 2006; McMurran et al., 2010; Messina, Farabee, & Rawson, 2003; Pettinati et al., 1999; Sargeant et al., 2012; Woodall et al., 2007; Young, 2004), therapeutic communities for the treatment of addicts (DeJong et al., 1993; Magor-Blatch et al., 2013; McKendrick et al., 2006; Messina et al., 1999; N. Messina et al., 2002; Sacks et al., 2008; Sacks & Sacks, 2010; Samuel et al., 2011), executive functioning (Barkataki et al., 2005; Barkataki et al., 2008; Crowell et al., 2003; Gillen & Hesselbrock, 1992; Malloy et al., 1989) and diagnostic tools (Brinded et al., 1999; Cottler et al., 1998; Fernandez-Montalvo et al., 2006).

I detail the studies, participant groups and findings in Appendix B.

Further research

This study has highlighted further research that is needed in a number of areas.

- 1. The consistency of results of the diagnostic tools for ASPD, and a reliable means of comparing studies.
- 2. Use of MBT in the treatment of ASPD.
- 3. ASPD treatment for females.
- 4. New Zealand based research into the effectiveness of therapeutic communities for addicts with ASPD, and also what other treatments are being used for ASPD.

- 5. Development of assessment tools that include the viewpoint of clinicians and peers of the individual with ASPD, as self-reporting alone has been found to produce inconsistent results.
- 6. Studies that investigate core personality and interpersonal relationships of individuals with ASPD rather than only behavioural traits.

Conclusion

In this chapter I discussed a number of key elements that stood out in the literature when treating individuals with co-occurring ASPD and addictions. I explored treatment options that are available for addicts with ASPD and how treatment should be undertaken to address the core formation of the individual rather than just behaviours, in a non-confronting manner, while taking account of gender differences. I then discussed three modalities that have been shown to enhance the treatment of ASPD individuals and that can be implemented within a therapeutic community. The complications of treatment for the dual diagnosis were discussed including negative behaviours, dropout rates and inability to form a therapeutic alliance. A further aspect of treatment that was shown to be problematic was that most treatments are based on verbal-expressive approaches but this can be a mismatch for addicts with ASPD. Other factors complicating treatment are that one to one therapy is far less effective for those with ASPD, and staff training is needed to prevent therapist counter transference. As well as this, tools used for diagnosis were found to produce inconsistent results because of the unreliability of the self-reporting done by ASPD individuals.

There is not much research available on the use of therapeutic communities in the treatment of addicts with ASPD but the literature available suggests that the TC is able to provide an adequate environment for change because (a) it is hierarchical, (b) it has a code of conduct which addresses maladaptive behaviours, (c) it exposes behaviours that otherwise would not have been visible and teaches behaviour management techniques, (d) it can be modified to include the modalities recommended for ASPD individuals, and (e) it creates an environment where the individual can have a reparative attachment experience.

I have included five guidelines for clinicians to follow when providing treatment in TCs for addicts with ASPD.

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Appendix A

Search 1 - Therapeutic communities

PsycINFO (limits: English Language, All Journals)

Search Words/Key Terms	Results	Relevant Articles
therapeutic community\$	2546	Refined search
addict\$	7480	Refined search
antisocial personality disorder	3921	Refined search
ASPD	460	8 + duplicates
therapeutic community\$ AND addict\$	364	15
therapeutic community\$ AND addict\$ AND antisocial personality disorder	3	10
'residential treatment' AND addict\$ AND antisocial personalit\$	4	2 + duplicates
residential and 'antisocial personalit\$'	46	21
(prison\$ and antisocial personality\$).mp.	423	Refined search
(antisocial personality\$ and treatment\$).mp. AND (prison\$ and antisocial personality\$).mp.	90	5
hospital AND antisocial personality	206	Refined search
(hospital AND 'antisocial personality') AND (antisocial personality\$ and treatment\$)	103	3 + Duplicates

ProQuest Central (limits: Scholarly Journal, Article, English)

Search Words/Key Terms	Results	Relevant Articles
therapeutic community*	1841	Refined search
addict*	82772	Refined search
antisocial personality disorder*	4245	Refined search
ASPD	1661	Refined search
"therapeutic community*" AND addict*	775	Refined search
therapeutic community\$ AND addict\$ AND antisocial personality disorder	158	8 + duplicates

ab(residential) AND ab(addict*) and antisocial personality	ab(addict*) and antisocial personality 3 1 + dupli	
residential treatment AND addict\$ and antisocial personality	245	Refined search
prison and "antisocial personality"	1013	1
(antisocial personality and treatment) AND (prison and antisocial personality)	1702	Refined search
ab(hospital) AND ab(antisocial personality)	28	duplicates

ProQuest Dissertations and Theses Global (limits: English)

Search Words/Key Terms	Results	s Relevant Articles	
"therapeutic communit*"	5214	Refined search	
ab("therapeutic communit*")	173	Refined search	
ab("therapeutic communit*") AND addict*	138	1	
antisocial personality disorder	7263	Refined search	
ab("antisocial personality disorder*")	206	3	
ab("therapeutic communit*") AND ("antisocial personality")	38	2	
ab("therapeutic communit*") AND attachment	79	1	
"residential treatment" AND antisocial personality disorder	4348	duplicate	
(residential) AND ("antisocial personality")	3300	Refined search	
ab(residential) AND ab("antisocial personality disorder")	5	1 + duplicate	
therapeutic community\$ AND addict\$ AND antisocial personality disorder	3125	Refined	

Psychoanalytic Electronic Publishing (limits: English, in paragraph)

Search Words/Key Terms	Results	Relevant Articles
"therapeutic community*"	505	Refined search
"therapeutic communit*" AND addict*	81	0
"therapeutic communit*" AND antisocial personality	16	1
"therapeutic communit*" AND antisocial personality (articles only)	263	0

"residential treatment" AND addict*	20	4
"residential treatment" AND antisocial personality	16	0
"residential treatment" AND addict* AND antisocial personality	3	0

Search 2 Anti-Social Personality Disorder and Addiction

PsycINFO (limits 'All journals' and 'English')

Search Words/Key Terms	Results Relevant Articles	
"antisocial personality disorder"	5247	Refined search
antisocial personality disorder AND addict\$.ab	183	Refined search
antisocial personality disorder adj5 addict\$	22	3
("antisocial personality disorder" and addict\$).ab.	114	8 + Duplicates
antisocial personality disorder.mp. and addict\$.ab.	183	8 + Duplicates
("antisocial personality disorder" and susbstance).af.	2	0
("antisocial personality disorder" and substance).ab.	645	Refined search
("antisocial personality disorder" adj5 substance).mp	212	11 + Duplicates

ProQuest Central (limits 'Scholarly journal', 'Articles' and 'English')

Search Words/Key Terms	Results Relevant Articles	
"antisocial personality disorder"	3921	Refined search
"antisocial personality disorder"AND addict*	1575	Refined search
"antisocial personality disorder" N/5 addict*	50	14 + duplicates
"antisocial personality disorder" AND ab(addict*)	139	Refined search
ab(antisocial personality disorder) AND ab(addict*)	28	1 + Duplicates
"antisocial personality disorder" and substance	2821	Refined search
ab("antisocial personality disorder") AND ab(substance)	106	1 + Duplicates
"antisocial personality disorder" AND drug	2726	Refined search

ab("antisocial personality disorder") AND ab(drug)	62	Duplicates
antisocial personality disorder N/5 drug	2062	Refined search
"antisocial personality disorder" N/5 drug	300	Refined search
"antisocial personality disorder" N/1 drug	60	Duplicates
ab(antisocial personality disorder) AND ab (drug)	41	2 + Duplicates
ab("antisocial personality disorder") AND ab (drug)	24	Duplicates

ProQuest Dissertations and Theses (limits: English)

Search Words/Key Terms	Results Relevant Articles	
"antisocial personality disorder"	6693	Refined search
"antisocial personality disorder" AND addict*	16045	Refined search
"antisocial personality disorder" AND addict*	3847	Refined search
antisocial N/5 addict*	503	Refined search
antisocial AND ab(addict*)	886	Refined search
ab(antisocial) AND ab(addict*)	36	8
ab("antisocial personality disorder") AND substance	171	Refined search
ab("antisocial personality disorder") AND ab(substance)	53	4 + duplicates
ab("antisocial personality disorder") AND ab(drug)	32	1 + duplicates

Psychoanalytic Electronic Publishing (limits: English, in paragraph)

Search Words/Key Terms	ords/Key Terms Results	
"antisocial personality" and addict*	50	4
"antisocial personality" AND addict* (articles only)	52	Duplicates
"antisocial personality" and "substance abuse"	30	1 + Duplicates
"antisocial personality" and drug	60	5

Appendix B

Research Summary

ASPD and Addiction

Study	Measure(s)	Sample group	Primary findings of relevance to this critical literature review
Adamson et al. (2006)	DSM-III-R and DSM IV Interview format used	105 patients from CADS located in Hamilton and Christchurch, New Zealand	89% met criteria for alcohol or other drug addiction (11% gambling) 27% of the 89% diagnosed with ASPD
Ball and Cecero (2001)	Structure Clinical Interview for the DSM- IV Axis II (SCID-II). The NEO Five Factor Inventory to assess personality traits. The Young Schema Questionnaire to assess early maladaptive schemas. The Brief Symptom Inventory to assess presenting problems.	41 methadone maintained patients.	ASPD associated with greater psychiatric and substance abuse severity in addicted populations. Planning and interventions are of greater relevance if based on personality and interpersonal and schema indicators rather than just a DSM-IV diagnosis.
Darke et al. (2004)	Structured interviews were carried out, with drug use and needle risk- taking measured using Opiate Treatment Index. Diagnosis of ASPD was obtained through using a modified Diagnostic Interview Schedule.	615 heroin users in Sydney, Australia	71% of participants met criteria for ASPD. ASPD also associated with lifetime overdose, poly drug use, and overall psychological distress
Fernandez- Montalvo et al. (2006)	Muncher Alkoholismus Test to diagnose alcoholism International Personality Disorders Examination semistructured diagnostic interview Million Clinical Multiaxial Inventory – self reported questionnaire	50 treatment seeking alcoholics, 55 from general population	ASPD in alcoholics = 8%, ASPD in general population = 1.8%

McGovern et al. (2006)	Author designed 106- item, 11 page survey in three versions: Agency director, Clinical Supervisor and Clinician	450 addiction treatment providers in NW USA responded	Co-occurring ASPD and addiction present in 18-20% of those receiving addiction treatment Providers wanted to offer integrated services for those with co-occurring disorders
Pettinati et al. (1999)	Trained interviewers interviewed participants and diagnosis made based on DSM-III-R criteria	232 patients at in or outpatient Carrier Foundation clinics in New Jersey USA	10.8% participants with SUD also diagnosed with ASPD
Verheul et al. (1995)	Literature review Authors researched epidemiological studies to identify prevalence of Personality Disorders in alcohol + drug addicted populations	52 studies covering period between 1982- 1994	PD range from 44% in those with alcoholic substance use disorder to 79% in those with opiod substance use disorder

ASPD and Addiction Treatment Outcomes

Author	Measure(s)	Sample group	Primary findings of relevance to this critical literature review
Ball (2005)	Review of evidence that supports the role of constellations of personality disorders that are commonly observed in substance abusers		Presence of personality disorder renders substance abusers more susceptible to relapse, however ASPD patients do appear to respond to psychiatric care, psychosocial services, behavioural incentive contingencies or cognitive behavioural therapies.
Brooner et al. (1998)	Clinical interview using DSM III-R diagnosis for ASPD and opioid dependence, along with addiction severity index Urinalysis collection and testing	New admissions into treatment (32) and inpatients (8) Random selection into either experimental program with use of contingency management or control group	No significant difference in treatment outcomes for those in experimental program or those in control program Both groups of patients with ASPD and opioid dependence showed improvement with decrease use of drug use and reduction in self-reported problem severity.

Cacciola et al., (1995)	Addiction Severity Index and NIMH diagnostic interview schedule were used.	224 men with alcohol and cocaine dependency admitted to Hospital Treatment Centre.	Similar and positive treatment outcomes were observed in those with and without the diagnosis of ASPD.
Compton et al. (1998)	Diagnostic Interview Schedule, version III-R (DIS), Composite International Diagnostic Interview-Substance Abuse Module (CIDI-SAM), the NIDA needle use and sexual behaviors interviews and a brief medical history were carried out.	333 cocaine users from 3 treatment facilities	34% diagnosed with ASPD, little significant difference in treatment outcome noted between those with and those without ASPD.
Cooney et al. (1991)	Coping skills training intervention was utilised. Psychiatric Severity subscale composite score of the Addiction Severity Index. The California Psychological Inventory Socialization scale, Wechsler Adult Intelligence Scale—Revised (WAIS-R), Digit-Symbol subtest Wisconsin Card Sorting test and the Trail Making Test Part B	97 alcoholics	The results indicate no significant difference between the interactional and coping skills treatments over a 2-year follow-up. The survival curves revealed that relapse occurred significantly more slowly when high psychopathology patients received coping skills treatment and when low psychopathology patients received interactional group therapy. Relapse rates were also slower when high sociopathy subjects were treated in coping skills groups and when low sociopathy subjects were treated with interactional therapy.
Daughters et al. 2008	Structured Clinical Interview for DSM-IV Personality Disorders and Clinical Interview for DSM-IV-TR Axis I Disorders Other information gained through self- reporting questionnaires	236 male residents of Salvation Army Harbor Light Residential Treatment Centre Washington	39.4% met criteria for ASPD No significant difference in dropout rate from treatment found between those with ASPD and those without ASPD Those with ASPD who were court mandated to treatment more likely to remain in treatment compared with those with ASPD who voluntarily enter treatment.

Davidson et al. (2009)	Exploring use of CBT. ASPD diagnosed using SCID-II along with MacArthur Community Violence Screening Instrument	52 adult men with a diagnosis of ASPD	CBT showed no significant behavioural changes in comparison with treatment as usual.
Drake et al. (1998)	Structured interview carried out by one of the researchers. Diagnosis of ASPD obtained from Diagnostic Interview Schedule (DIS)	100 prison inmates, New South Wales Australia.	Drug use and risk-taking patterns undertaken by those with ASPD and those without ASPD were similar. Response to treatment was similar with those with ASPD and those without.
Gil et al. (1992)	National Institute of Mental Health Diagnostic Interview Schedule NIMH DIS used to diagnose ASPD.	55 participants admitted to methadone maintenance program	42% diagnosed with ASPD. No significant differences between those with ASPD and those without ASPD on any demographic or treatment outcome variables were noted.
Havens & Strathdee (2005)	22 studies were reviewed in regards to ASPD and opioid treatment outcomes		Prevalence of ASPD greater within the addicted population. Identified few differences in opioid treatment retention and outcomes for those with ASPD compared to those without.
Kokkevi et al. (1998)	Intake form completed along with: Europ ASI – European adaptation of the 5 th edition of the Addiction Severity Index. Symptom Check List-90-Revised, Composite International Diagnostic Interview, SCID II, and lastly a discharge form were completed.	226 drug-dependent individuals admitted to TC program in Greece.	Subjects with personality disorders had higher prevalence of Axis I disorders. ASPD the most prevalent personality disorder. Presence of Axis I disorders stronger predictors of treatment drop out as compared with Axis II disorders alone.
McGovern et al. (2006)	Survey packs containing three versions of an 11-page survey forms one for the agency director, one for the clinical supervisor and one for the clinician	450 addiction treatment providers	ASPD and addiction a common co-occurrence representing 18-20% of the addicted population within treatment centres. Treatment needs to address both the personality and addictive disorder.
McMurran et al. (2010)	Literature review of 28 studies from several different countries reviewing factors		Clients with personality disorders did not appear more prone to treatment non-

Messina et al. (2003)	resulting in non- completion of treatment with those with personality disorders Participants randomly assigned to one of 4 study conditions. Addiction Severity Index was utilised along with the Structural Clinical Interview for Mental Disorders (SCID-IV)	108 participants from two licensed narcotic treatment program in the USA	completion as oppose to those without a personality disorder. 71% of male and 43% of female participants were diagnosed with ASPD. Treatment retention did not differ between those with ASPD and those without. Contrary to previous findings those with ASPD displayed longer abstinence from cocaine use compared to those without ASPD.
Pettinati et al. (1999)	Structured Clinical Interview for DSM-III-R (SCID I and II) carried out by trained interviewers	232 patients (175 males, 57 females) with cocaine and/or alcohol dependence admitted to either inpatient or outpatient programs	as with ASPD. The presence of ASPD did not predict substance use post treatment after one year. Cluster C personality group (avoidant, dependent, obsessive-compulsive, passive-aggressive and self-defeating) diagnosis more likely to lead to substance re-use in the year post treatment as compared to those personality groups along with ASPD in Cluster B. Diagnosis of both Axis I and II disorders most common predictor of return to substance use post treatment.
Sargeant et al. (2012)	Questionnaire Structured clinical interview for identification of DSM VI, Axis II diagnosis of ASPD Likert-type scale use to identify level of substance use Trait Negative Emotionality Superfactor and the Control subscale of the Multidimensional Personality Questionnaire utilised	Study based in the USA with 117 inpatient resident participants of a drug and alcohol abuse centre	Those with ASPD displayed shorter previous abstinence attempts and less persistence to achieve abstinence as compared to the control. It was noted that lower levels of impulsive control were associated with poor outcomes. ASPD individuals who displayed certain levels of control sustained longer periods of abstinence.

Woodallas	Daview of the use of	205 offenders	16 individuals from control
Woodall et	Review of the use of	305 offenders.	16 individuals from control
al. (2007)	Motivational	New Mexico.	group and 36 individuals from
	Interviewing. Diagnostic		treatment group were
	Interview Schedule was		diagnosed with ASPD, with
	used to assess the		essentially the same number of
	presence of alcohol		men and women diagnosed
	dependence and ASPD.		with ASPD.
	A series of questions		Individuals with ASPD showed
	were designed along		improvement over time with
	with the use of 'Form		reduced reporting of drinking
	90' to assess and		and driving which was contrary
	measure drinking over a		to expectations.
	90 day period		The conference of the conferen
Young et	Addiction Severity	350 clients mandated to	Higher retention and a lower
al. (2004)	Index, Official criminal	the same long-term	criminal recidivism rate in
ui. (2001)	history data and	residential treatment	clients engaging in drug
	Perception of Legal	facilities from three	treatment programs such as the
	Pressure questionnaire,	different legal sources.	alternative to prison programs
	-	different legal sources.	
	developed by the		(DTAP) and Treatment
	researchers was used.		Alternatives for Safe
			Communities (TASC) were
			identified in comparison to two
			groups who were mandated to
			treatment.

Therapeutic Communities for the Treatment of Addicts with ASPD

Author	Measure(s)	Sample group	Primary findings of
			relevance to this critical
			literature review
DeJong et	Assessments carried out	178 alcoholics – 72%	Higher prevalence of ASPD in
al. (1993)	using the clinical	male, 28% female,	drug addict group.
	guidelines for DMS-III-	along with 86 polydrug	Participants with ASPD needed
	R along with interview	addicts – 73% male,	more confrontation, limits and
	similar to the Addiction	27% female	structure as opposed to insight
	Severity Index.		or criticism.
			Addicts with personality
			disorders benefit from support
			groups and TC.
Magor-	MCMI-III assessed Axis	213 participants, 130	88 of those with ASPD
Blatch et	I and II disorders.	male, 93 female from	completed treatment, 90 did
al. (2013)		12 TC within Australia	not – limited deviance in
			comparison to those with other
			disorders. No significant
			differences in treatment
			retention noted, suggested that
			changes in personality can
			occur over time during
			treatment.

McKenrick	Diagnostic Interview	139 subjects placed in	50% of subjects had ASPD and
et al. (2006)	Survey –III-R and DIS-IV to identify ASPD. Self-reported measures drawn from the CTCR Interview Protocol and information from correctional records retrieved.	either a modified TC or a mental health treatment program. US study	those with ASPD more likely to be dysfunctional, have greater difficulties in employment, education and residential stability. They were less motivated for treatment and more likely to have had prior treatment. 97% individuals with ASPD met criteria for substance abuse/dependence. Preliminary results show those with ASPD showed positive outcomes with reduced criminal activity, arrests and substance use.
Messina et al. (2002)	Millon Clinical Multiaxial Inventory (MCMI-II) used to diagnosis ASPD	275 participants, 72% male.	Diagnosis of ASPD was unrelated to treatment outcomes. Treatment completion most important factor in reducing recent drug use and post discharge arrest. Those with ASPD can benefit from treatment within TC and benefit from ongoing aftercare.
Messina et al. (1999)	Individual Assessment Profile administered followed by assignment to treatment. Psychological tests including Beck Depression Inventory, the Brief Symptom Inventory, Millon Clinical Multiaxial Inventory-II, State-Trait Anger Expression Inventory and SCID-I and SCID-II	412 participants, with 380 successfully reinterviewed.	49% diagnosed with ASPD. No difference identified between those with ASPD and those without in terms of treatment completion rates and treatment completers had reduction in drug use and post discharge arrest.
Sacks et al. (2008)	Descriptive summary of 4 studies pertaining to the treatment of co- occurring disorders within the TC		TC program was able to adapt to meet the needs of the population requiring treatment. Overall significantly better outcomes were observed over all 4 studies.

Sacks et al.	Summary and synthesis		Reports that modified TC have
(2008)	of research findings and		favourable outcome for co-
	themes and discussion of		occurring disorders.
	implications for		Contingency management
	treatment		effective for clients with ASPD
			and substance dependence.
Sacks &	4 research studies		MTC respond to
Sacks	reviewed regarding the		multidimensional problems of
(2010)	effectiveness of MTC		persons with co-occurring
	for persons with co-		disorders.
	occurring disorders.		
Samuel et	Personality disorders	Adolescents 15-18yrs =	ASPD unrelated to treatment
al. (2011)	assessed using the	49; Adults 19-65yrs =	retention, however of those
	Schedule for	77 from Northeaster US	who did drop out of treatment
	Nonadaptive and	with lifetime diagnosis	those with ASPD were more
	Adaptive Personality	of DSM-IV substance	likely to drop out within first
	(SNAP).	abuse or dependence.	30 days.

Executive Functioning

Author	Measure(s)	Sample group	Primary findings of relevance to this critical literature review
Barkataki et al. (2008)	Functional magnetic resonance imaging (fMRI) was used to assess response inhibition and associated neural activation during a motor inhibition paradigm.	Men with a history of violence and ASPD (14), with schizophrenia (12). Men with schizophrenia without a history of violence (12), and healthy control subjects (14)	At a behavioural level those with ASPD had an increased error rate only during the conditions requiring inhibition. Likely violence due to impaired voluntary inhibition in those with ASPD.
Barkataki et al. (2005)	Several neuropsychological tests were undertaken to assess EF.	violent men with ASPD (N=14), schizophrenic men (N=13), healthy control group (N=15)	Results comparing individuals with ASPD and those without did not differ significantly in regards to neuropsychological functioning.
Crowell et al. (2003)	DIS-III-A and Minnesota Multiphasic Personality Inventory (MMPI) was used to identify presence of ASPD. Neuropsychological tests were undertaken taking into account significant variables.	336 participants divided into four groups were selected from the Centers for Disease Control (CDC) Vietnam Experience study.	Presence of ASPD did not result in any significant difference in performance in regards to EF and other cognitive abilities as compared to individuals with other psychiatric disorders or those without ASPD.

Gillen and Hesselbrock (1992)	A structured family history interview schedule was used to determine family history of alcoholism and other psychiatric disorders. NIMH Diagnostic Interview Schedule (DIS) version III-A was used to identify psychiatric disorders. Global Assessment of Functioning Scale and the Michigan	Participants from the community. 34 with ASPD and 57 without ASPD.	Those with ASPD displayed relative deficiencies in several neuropsychological skill areas. Individuals in this sample with ASPD were more likely to have Attention Deficit Disorders, higher prevalence of parental neglect and physical abuse – including head injuries. Thus these factors could also influence their test results.
	Schedule (DIS) version III-A was used to identify psychiatric disorders. Global Assessment of Functioning Scale and the Michigan Alcoholism Screening		abuse – including head injuries. Thus these factors could also influence their test
	Test was undertaken along with 9 other tests to assess neuropsychological skills.		
Malloy et al. (1989)	Subtests from the Halstead-Reitan Neuropsychological Battery, Wechsler Adult Intelligence Scale and the Wechsler Memory Scale were utilised	182 alcoholic clients taken from outpatient programs – 81% diagnosed with ASPD	Those with ASPD were more impaired on the Brain Age Quotient (a summary measure of neuropsychological impairment). The presence of APSD contributed greatly this impairment regardless of age, gender or length of drinking.

Diagnostic tools

Author	Measure(s)	Sample group	Primary findings of relevance to this critical literature review
Brinded et al. (1999)	SCID II, the 'Four A's' and Temperament and Character Inventory (TCI) tools were utilised	225 inmates (50 female, 175 male)	'Four A's' showed lower prevalence of ASPD as compared to SCID results. Although 'Four A's' not extensively validated does identify inmates with personality disorders that are not normally identified. The TCI and SCID II produced similar percentages in regards to identifying those with ASPD. Those with ASPD reports do not always reflect their behaviour.

Cottler et al. (1998)	Diagnostic Interview Schedule Version III-R (DIS) was used to identify diagnosis of ASPD	453 participants from treatment programs and from the community	Self-reports are "fairly" reliable. Disclosure pertaining to illegal behaviour was often lacking. Information given by those stating they were liars and those stating they were not liars in fact did not differ in regards to disclosure of behaviours.
Fernandez- Montalvo et al. (2006)	All participants were assessed using the IPDE and the MCMI-II tools	105 participants – 50 alcohol treatment seeking addicts and 55 participants from the general population	According to the IPDE, 22% of alcoholics, versus 7.27% of the normal sample, showed at least one PD compared with the MCMI-II tool which in which 52% of the alcoholic sample had at least one PD and 18.1% in the normal sample. IPDE appears more accurate as not based on self-reporting. Self-reporting leads to over diagnosis.