

**ADHERENCE TO HIGHLY ACTIVE ANTI-
RETROVIRALS AND THE IMPACT OF
BORDERLINE PERSONALITY DISORDER
THEREON**

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DECLARATION

I, the undersigned, hereby declare that the work contained in this assignment is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

Signature

Date

Abstract

Adherence to medical regimes and the difficulties associated with patient adherence are well documented. Furthermore, non-adherence with prescribed medication is ubiquitous. Regarding HIV, strict adherence to combination highly active antiretroviral therapy regimes is a prerequisite for immunological reconstitution. Certain factors have been identified as predicting non-adherence. However, the role of personality variables on adherence has been neglected, specifically with regards to personality pathology. Moreover, there is a high rate of comorbidity between HIV and Axis II disorders, including BPD. Despite controversy, the DSM-IV-TR identifies nine fundamental criteria required for the diagnosis of BPD to be made. These criteria are considered separately in an attempt to elucidate their potential role on non-adherence. Clinically, it is likely that the criteria interact to create a gestalt effect, further complicating adherence.

Abstrak

Patiënt voldoening ter mediese aanbevele en die probleme geassosier daar mee is goed gedokumenteer. En verder is dit allerdags dat patiënte nie met hul voorgeskrewe medikasie voldoen nie. In verband met MIV, streng voldoening tot HAART is a voorvereiste vir immunologiese hersamestelling. Sekere faktore is geïdentifiseer wat voldoening en die teenoorgestelde daarvan voorspel. Alhoewel, die rol van persoonlikheid veranderlikes op voldoening is nie in ag geneem nie, spesifieker in verband met persoonlikheid patologie. Bowenal, is daar n hoë frekwensie van komorbiditeit tussen MIV en As II steurings, insluitend BPD. Ten spyte van kontroversie, die DSM-IV-TR identifiseer nege fundamentele kriteria, waarvan vyf teenwoordig moet wees vir n diagnose van BPD. Hierdie kriteria word individueel bespreek in n poging om hulle impak op patiënte voldoening te illustreer. Klinies is dit heel moontlik dat daar interaksie is tussen dié kriteria wat n gestalt effek sal skep, wat voldoening weer verder sal kompliseer.

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1.1. Introduction

This paper is divided into three sections. The first discusses the concept of patient adherence to medical prescriptions, and highlights the suboptimal rate of adherence documented in the literature. This is of particular concern to the treatment of the human immunodeficiency virus (HIV) given the consequences of poor adherence. The role of personality and its influence on patient adherence as well as the lack of research into this field is also discussed.

The second section provides a brief overview of personality disorders, with specific reference to borderline personality disorder (BPD). Included in this section are the exigencies associated with the disorder as well as the epidemiology and treatment of BPD.

The third section attempts to integrate the previous two sections by illustrating the potential means by which BPD may negatively influence a patient's adherence to the treatment of HIV.

1.2. Adherence

The concept of patient adherence to medical regimes prescribed for a variety of clinical syndromes such as hypertension, epilepsy, asthma, and other chronic illnesses is well documented (Johnston, Roberts & Mann, 2000). Willey, Redding, Stafford, Garfield, Geletko, Flanigan, Melbourne, Mitty, and Caro (2000) state that non-adherence on the other hand can either be intentional or unintentional. In addition to this variable, Ware, Wyatt, and Tugenberg (2005) state that multiple confounding difficulties associated with patient adherence have been illustrated. Consequently, as a result of the associated difficulties, non-adherence with prescribed medication or ignoring medical advice is ubiquitous (Karasz, Dyche, & Selwyn, 2003; Wright, 2000; Walsh, Horne, Dalton, Burgess, & Gazzard, 2001), with some authors

stating that patient adherence is the most powerful variable hindering the success of applied medicine (Dunbar & Stunkard, 1979, cited in Ekstrand & Chesney, 2002).

There is consensus in the literature that of the medical conditions already studied, none are as complex to manage as the human immunodeficiency virus (HIV)(Walsh, Horne, Dalton, Burgess, & Gazzard, 2001; Ekstrand & Chesney, 2002). Consequently, it could be expected that adherence to treatment of HIV would be proportionately onerous and complex. The treatment of HIV is complicated (Joly & Yeni, 2000) given, amongst others its broad individual variance with which it presents clinically and its unpredictable course; the rapid developments in treatment protocols; and the stigma and discrimination associated with the disease (Remien & Rabkin, 2002). However, the use of combination highly active antiretroviral therapy (HAART) has significantly improved the medical treatment of HIV (Karasz, Dyche, & Selwyn, 2003) and dramatically changed the course of clinical management in HIV-positive (HIV+) patients in the last five years (Spire, Duran, Souville, Leport, Raffi, & Moatti, 2002; Ricart, Cohen, Alfonso, Hoffman, Quiñones, Cohen, & Indyk, 2002).

1.3. HAART

The primary function of HAART is to aggressively manage the infection and disease through slowing down immunologic failure by containing and suppressing replication of the virus (Halman, Bialer, Worth, & Rourke, 2002). The use of HAART to treat HIV has increased to the extent that it has become established as the first line of treatment, demonstrating superior efficacy over other treatment options (Gulick, Mellors, & Havlir, 1998, cited in Halman, Bialer, Worth, & Rourke, 2002). Similarly, it has proven to be significantly effective in reducing both associated morbidity and

mortality (Mugavero & Hicks, 2004; Tang & Pillay, 2004; del Rio, 2005).

Epidemiologically, Meel (2005) reports that South Africa has the largest HIV+ population in the world. Given this epidemic status (Eley, In Press), the effective use of HAART becomes of pivotal importance to public health. In light of the significant social impact of HIV, the government is directly implicated in taking responsibility for distributing HAART. Opie (2005) states that in South Africa this is indeed the case, and that access to HAART is primarily via the public health system

1.4. HAART and adherence

For HAART to be clinically therapeutic in ensuring viral suppression, strict adherence to the medication regimes is essential (Chesney, Morin, & Sherr, 2000; Albus, Schmeißer, Salzberger, & Fätkenuer, 2005; Vieira, Rebocho, Sousa, & Azevedo, 2003; Belzer, Fuchs, Luftman, Tucker, 1999). Not only does this mean doggedly taking the pills correctly, but it may also have dietary implications to promote absorption of the medication in the gastro-intestinal tract as well as other health-related behavioural implications (Halman, Bialer, Worth, Rourke, 2002).

While partial adherence with other illnesses may be acceptable, this is not the case with HAART (Safren, Otto, Worth, Salomon, Johnson, Mayer, Boswell, 2001). If HAART is used in a sub-optimal, erratic, capricious manner, then mutant, treatment-resistant strains of the virus can develop (Karasz, Dyche, & Selwyn, 2003). This will drastically impinge on future treatment options for the host. Furthermore it complicates the course of the HIV through the loss of viral suppression and increase in viral replication (Halman, Bialer, Worth, Rourke, 2002). Additionally, the resistant strain also has the potential to be transmitted to others (Tang & Pillay, 2004). Thus, HAART is rendered a redundant treatment option for them too

(Ickovicks & Meade, 2002). In other words, adherence to HAART is crucial for the durable reconstitution of the immune system by maintaining therapeutic blood levels of HAART to maintain viral suppression. Non-adherence, even for very brief episodes of time, is thus directly proportional to increased risk for treatment failure (Walsh, Horne, Dalton, Burgess, & Gazzard, 2001). As such, the World Health Organization (2003, p.101) states that adherence to HAART is "arguably the most important issue in successfully managing HIV...".

Despite the agreed upon finding that adherence is of fundamental importance, Ickovicks and Meade (2003) as well as Eckstrand and Chesney (2002), assert that non-adherence is common. This is supported by research conducted by Roca, Gómez, & Arnedo (2000). As such, the literature examining this concept is vast (Reynolds, 2003). Studies have identified the following as significant predictors of non-adherence

- deleterious side-effects of the medication, such as nausea, asthenia, headache and lipodystrophy (Halman, Bialer, Worth, Rourke, 2002)
- the unprecedented complex and demanding nature of medication regimens (Remien & Rabkin, 2002)

Additionally, a number of demographic variables have been reported as being either significant predictors or a criterion on which sub-groups can be significantly differentiated with regards to non-adherence. Johnson et. al. (2005) identified ethnicity, age and gender, while Ekstrand and Chesney (2002) reported socio-economic status as being significant predictors of non-adherence.

1.5. Personality and adherence

Despite the valuable contribution of the findings from studies on adherence, the role of psychological variables on the phenomenology of medical illness and specifically adherence has not been taken into account adequately (Ursano, Epstein, & Lazar, 2002). Sherr (2000) concurs that the elucidation of psychological variables, including personality, would be beneficial in developing a comprehensive conceptualisation of adherence. Unfortunately, the study of personality pathology is still in its infancy compared to research into other Axis I disorders (Hyman, 2002). This finding is reinforced by Yates (2002) who states that the mechanisms through which personality pathology affects adherence is not clearly understood at present due to the limited number of studies that have been conducted in this field.

Ball and Schottenfield (1997) have demonstrated a positive correlation between personality traits, such as neuroticism and impulsiveness (both associated with personality pathology) and compromised health habits. Similarly, increased levels of social distress and Axis I disorders, including depression and anxiety, and poorer overall functioning have been associated with the same personality traits (Johnson, Williams, Rabkin, Goetz, & Remien, 1995). Additionally, Stoudemire and Thompson (1983, cited in Ursano, Epstein, & Lazar, 2002) found that patients with BPD, an Axis II disorder, had tremendous difficulty adhering to medical regimens.

Penedo, Gonzalez, Dahn, Antoni, Malow, Costa, and Schneiderman (2003) have contributed to the extant literature by attempting to elucidate and document the relationship between personality traits and quality of life (as measured by a sense of purpose) and its effects on adherence in HIV+ individuals. The conclusion of this study was that personality significantly affected patients' quality of life, which in turn significantly influenced patient

adherence to HAART. However, the focus was on intact personality functioning, and an Axis II diagnosis was used as an exclusion criterion for patient participation. The assumption was made that patients with healthy personality traits, such as high extraversion and agreeableness, had greater potential for developing a sense of purpose or increased quality of life, which in turn would facilitate adherence. Conversely, a compromised personality (in other words a patient with a personality disorder) could lead to compromised quality of life, which in turn might lead to compromised adherence.

Given the high incidence of HIV+ patients who have personality disorders (Golding & Perkins, 1996; Johnson, Wiliams, Rabkin, Goetz, & Remien, 1995; Ursano, Epstein, & Lazar, 2002; Angelino & Treisman, 2001) and the paucity of research with the explicit focus on personality variables, it becomes pivotal to examine the impact of personality pathology (direct or mediated) on adherence. This is supported by the researchers of the study cited above who concluded that more circumscribed research needs to be conducted to ascertain possible direct relationships between gross psychopathology such as "DSM-IV criteria for borderline or antisocial personality disorder" and HAART adherence (Penedo, Gonzalez, Dahn, Antoni, Malow, Costa, & Schneiderman, 2003).

Paradoxically, Wright (2000) states though that neither personality characteristics nor pathological behaviour can adequately account for non-adherence to medical regimens, but rather that the phenomenological meaning that the patient ascribes to the medical intervention may have a more potent effect on the patient's adherence. The patient with a BPD seems to be at increased risk for failing to develop a stable and enduring sense of meaning as a direct result of their personality pathology, which in turn compromises their ability to experience a higher quality of life. Consequently, their ability to adhere to medical regimens will be compromised.

2. 1. Personality Disorders

The term personality has proven to be relatively arduous and elusive construct to conceptualise (Pervin & John, 1997, Casey, 2000). The result being that multiple theories have been developed to describe and account for the dynamics contained therein, specifically relating to the structure of personality and the way individuals resemble and deviate from each other (Westen, 1996).

Sadock and Sadock (2003) define personality as a term describing an individual's objective behaviour and subjective inner experience of that behaviour. Personality Disorders then, as defined by the DSM-IV-TR (2004), are characterized by chronic maladaptive patterns of relating to the world that are pervasive and inflexible, and that lead to distress or impairment. Casey (2000) states that the epidemiology of personality disorders is acutely dependent on the population being sampled and the diagnostic instruments and criteria utilized.

Clinically, patients with personality disorders often deny their symptoms as they are experienced ego-syntonic (Kluger & Song, 2003; Sadock & Sadock, 2003). These patients tend to demonstrate poor levels of insight into their condition (Nair & Lay, 2001; Loranger, 1999) as well as poor adherence and non-compliance to treatment regimens (Angelino & Treisman, 2001; Stilley, Dew, Pilkonis, Bender, McNulty, Christensen, McCurry, & Kormos, 2005; Davidson & Tyrer, 2000), which will have obvious negative implications for treatment outcomes.

An exacerbating factor is that personality disorders often occur co-morbidly with Axis I disorders, which subsequently complicates the treatment course (Kaliski, 2001). Puri, Laking and Treasaden (2002) further assert that comorbidity results in pathoplasticity, the confounding of a clinical picture due to comorbid clinical pictures. As such, the literature has emphasized the difficulties associated with the treatment of personality disorders (Perry & Bond, 2000) and

numerous studies have been conducted demonstrating a poorer outcome for patients who have a comorbid Axis I and Axis II disorder compared to those without an Axis II diagnosis (Ozkan & Altindag, 2005; Skodol, Gunderson, Pfohl, Widiger, Livesley, & Siever, 2002). In other words, the presence of an Axis II disorder has been identified as a potential predictor of poor treatment outcome of comorbid Axis I disorders.

Conversely, there is a limited amount of literature that reports that treatment response is unaffected by the comorbid presence of a personality disorder, with the exception of Cluster B personality disorders. The authors state that this is consistent with other literature on borderline personality disorder specifically (Mulder, Joyce, & Luty, 2003). According to Ketterer, Mahr, and Goldberg (2000), it is also well known that psychological variables such as personality style may influence Axis III treatment.

2.2. Borderline Personality Disorder

Traditionally, BPD has been understood in psychodynamic terms stemming from Kernberg's (1967) formulations as well as other psychoanalytic object relations theories such as Mahler (Hamilton, 1990). Unfortunately, the literature on BPD has become characterized by pejorative language (Wirth-Cauchon, 2001) with the overarching idea that it is an untreatable disorder (Arntz, 2005). However, contemporary research has challenged this notion, such as Linehan, Armstrong, Suarez, Allmon, and Heard (1991) and other cognitive-behavioural approaches, with a shift away from psychodynamic conceptualizations to an emphasis on affective regulation and impulse control (Homan, 2002).

The current diagnostic status of BPD is ambiguous (Benazzi, 2005) and the term BPD has developed into a contentious nosological issue, receiving mounting interest from mental health professions (Skodol et al, 2002; Mohan 2002). By and large this

attention seems due to the unrelenting complexities associated with the dynamic etiology (Rosenthal, Cheavens, Lejuez, & Lynch, 2004), as well as the diagnosis and treatment of the disorder (Sperry, 1995). The Harvard Mental Health Letter (2002) states that BPD can present as one of the most convoluted and complicated personality disorders. Despite the interest and what has been researched already, Hyman (2002) states that more meaningful research into the disorder is still needed to expound it further given the heterogeneity with which it presents. Arntz (2005) on the other hand, states that despite the tremendous amount of research being conducted on BPD, little is known from empirical research on the disorder.

Clinically, BPD is a serious disorder (Lieb, Zanarini, Schmahl, Linehan, & Bohus, 2004). It is characterized by marked instability and chaos (Barlow & Durand, 1999), which manifests in a number of areas: namely in (1) relationships, which are often described as being turbulent; (2) a distorted self-image; (3) affective instability; (4) behavioural impulsivity; and (5) sexual promiscuity (Skodol et al, 2002, cited in Houston, Ceballos, Hesselbrock, & O'Bauer, 2005). Bateman and Fonagy (2004) also assert that both clinicians and theorists have consistently identified attachment difficulties as a core phenomenological feature of patients with BPD.

The DSM-IV-TR (2000, p.706) criteria for making a diagnosis of BPD are two-fold. Firstly, the symptoms identified must meet the diagnostic criteria whereby a "pervasive pattern of instability of interpersonal relationships, self-image, and affects; and secondly, marked impulsivity beginning by early adulthood and present in a variety of contexts must be exhibited in addition to at least five of the following:

- Frantic efforts to avoid real or imagined abandonment

- A pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation
- Identity disturbance: strikingly and persistently unstable self-image or sense of self
- Impulsivity in at least two areas that are potentially self-damaging (e.g. spending, sex, substance abuse, reckless driving, binge eating)
- Recurrent suicidal behaviour, gestures, or threats, or self-mutilating behaviour
- Affective instability due to marked reactivity of mood (e.g. intense episodic dysphoria, irritability, or anxiety usually lasting a few hours and only rarely more than a few days)
- Chronic feelings of emptiness
- Inappropriate, intense anger or difficulty controlling anger (e.g. frequent displays of temper, constant, recurrent physical fights)
- Transient, stress-related paranoid ideation or severe dissociative symptoms

These criteria are often interpreted very differently by clinicians. As mentioned before, this becomes a site for contention. For example, Bateman and Fonagy (2004) state that the DSM-IV criteria omits to take into account several salient cognitive factors, such as schemata that are specific to patients with BPD. Others, such as Layden, Newman, Freeman, and Morse (1993) posit that the following heuristic markers are generally reliable in diagnosing the disorder:

- The patient states, "I've always been this way. This is who I am."

- The patient demonstrates chronic noncompliance with the therapeutic regimen
- Therapeutic progress seems to come to a sudden halt
- The patient is unaware of the negative effects of his or her behaviours
- The patient misses many sessions, arrives late, and sometimes leaves abruptly
- The patient exhibits an extreme all-or-nothing style of thinking
- the patient frequently does things that cause some sort of self harm

The implicit assumption in this list developed by Freeman and Morse (1993) is that a distinction can be made between BPD and other diagnoses based on this list. However, it is questionable whether this is valid. The emphasis here should be on the term "heuristic" which suggests a subjective, phenomenological experience, and is not empirically based. Additionally, developing heuristic markers is problematic given that only five of nine criteria need to be fulfilled to make a diagnosis. Statistically, this equates to 151 possible combinations of the disorder to develop –it is possible for two patients to be diagnosed as having BPD and yet only share one of the nine criteria (Bateman & Fonagy, 2004). Thus heuristic markers are likely to be unreliable in facilitating reliable diagnosis.

Freeman and Fusco (2004) also attempt to identify common reliable clinical presentations of patients with BPD. They state that patients with BPD often present with chronic problems that have affected a significant part of their lives in a variety of different contexts. The authors attribute this to characteristic personality traits specific to BPD, namely:

- A crisis-prone style, with their baseline functioning often remaining in a state of being overwhelmed
- Heightened sensitivity, often resulting in a cascade of negative outcomes
- Dichotomous thinking

The result of these traits interacting with each other is that the patient often has poor coping and problem solving skills, and has a tendency to inflate minor stressors into catastrophic events, thus further exacerbating their already stressful experience of life. Some authors purport that the instability of a patient with BPD manifests on a substrate of emotional dysfunctioning and hyperresponsiveness (Herpertz, 2003), characterized by a range of acute dysphoric affect (Lieb, Zanarini, Schmahl, Linehan, & Bohus, 2004).

Additionally, they form intense, but fragile attachments with others, which are not necessarily reciprocated, and fear the loss of these attachments. Similarly they violate relationship boundaries, but are haunted by feelings of chronic emptiness (Sadock & Sadock, 2003). In an effort to cope with these feelings, they may channel their emotions either outward in aggressive acts, or inward in self-mutilating ways (Comer, 2001).

2.2. Epidemiology

Whilst about 10% to 20% of the general population may fulfill the criteria for one or more personality disorders (Kluger & Song, 2003; Nair & Lay, 2001) there is some variability of figures quoted for individuals who meet the criteria for a diagnosis of BPD. Torgersen et al. (2001, cited in Lieb, Zanarini, Schmahl, Linehan, & Bohus, 2004) states that the weighted prevalence of BPD in adult populations varies between 0.7% in Norway to 1.8% in the USA. Comer (2001) reports figures of 2%, with Arntz (2005) concurring,

citing an average of 2% in the general adult population. Sadock and Sadock (2003) tend to agree with these figures, stating that no definitive epidemiological research is available, but that estimates tend to cluster around 1% to 2% of the population.

Allwood and Nair (2001) report that women are disproportionately susceptible to mental health problems, and there is consensus in other literature that BPD too is generally more commonly diagnosed in women than in men (Puri, Laking, & Treasaden, 2002; Kluger & Song, 2003; Nair & Lay, 2001; Sadock & Sadock, 2003). Within psychiatric populations, BPD tends to account for a significant proportion of the population, with figures cited ranging from between 10% to 20% (Guttman, 2002; Barlow & Durand, 1999).

2.3. Treatment

Zanarini, Frankenburg, Khera, and Bleichman (2001) state that most patients with BPD present for treatment in late adolescence, and characteristically, become high service users of psychological resources. Compared to patients with other personality disorders, BPD is associated with the highest utilization of mental health resources (Bender, 2001).

Lieb et al. (2004) report that patients with BPD present for treatment at varying degrees of severity, with the most severe being those with behavioural dyscontrol. Together with the other features of BPD, such as acute dysphoria, a lethal cocktail is created placing the patient at compounded risk toward suicidal ideation and attempts. Naturally, the target of an intervention with such a patient is to reduce suicidal behaviour.

BPD patients have a number of psychological treatment options. Individual psychotherapy, which has traditionally been the treatment of choice for BPD (Gunderson, 2000) as well as group therapy (Stone, 2000, cited in Comer, 2001) may lead to varying degrees of improvement (Links & Heslegrave, 2000). Bateman and

Fonagy (2000) report though that valid research instruments measuring quantifiable personality change attributable to psychotherapy need to be designed to measure these constructs.

Currently there is a change in focus for treatment of BPD though, with the emphasis being on time-bound psychotherapy and targeted pharmacotherapy (Mohan, 2001), although other forms of psychotherapy are still indicated depending on the idiopathic needs of the patient (Harvard Mental Health Letter, 2002). One such form of manualised therapy is Dialectical-Behavioural Therapy (DBT) (Davidson & Tyrer, 2000). Developed by Linehan (1987), and supported by her groundbreaking research demonstrating DBT's efficacy over other interventions (Arntz, 2005), DBT is a behavioural conceptualization which proposes that dysfunction is a product of emotional dysregulation (Freeman & Fusco, 2004). The primary focus of DBT therefore is to facilitate and bolster emotional regulation skills (Linehan, 1987). Initially, it was developed as a goal-oriented, comprehensive, out-patient programme, but in-patient programmes have subsequently also been developed (Bohus et al, 2004). Whilst DBT has established itself as a useful intervention, empirical evidence lending itself toward an emotional regulation pathogenesis of BPD is somewhat limited (Arntz, 2004).

Pharmacotherapy is also sometimes indicated in treating BPD individuals, especially if it is used adjunctively to allow BPD patients to be more amenable to psychotherapy (Bateman & Fonagy, 2004). Tyrer (2000) states that pharmacotherapy is used more frequently to treat BPD than any of the other personality disorders. Of the psychotropic medications available, Mohan (2002) states that neuroleptics have been the most widely researched in treating BPD, which have demonstrated efficacy in treating transient psychotic symptoms and emotional regulation.

The treatment of BPD patients has come to be regarded as being notoriously difficult (Nair & Lay, 2001) and complicated for the

psychotherapist (Arntz, 2005). Of all the psychiatric conditions and personality disorders, no other seems as distinguishable with regards to the complexities associated with treatment, with many practitioners refusing or being skeptical to work with BPD patients (Barlow & Durand, 1999; Tse, 2001). These patients characteristically do not complete their treatment programmes, whether it be in psychotherapy or psychopharmacotherapy, often creating set-backs in treatment just as progress is being realized. The DSM-IV-TR (2000) states that patients with BPD are prone to developing patterns of behaviour whereby they undermine themselves as a goal is about to be fulfilled.

Renneberg, Heyn, Gebhard, and Bachmann (2005) state that patients with BPD have tremendous difficulty with their personal and social relationships. Kluger and Song (2003) report similar dynamics between patients with BPD and their mental health practitioners and other service providers, which often become turbulent and strained, thereby demonstrating their global tendency to form intensely disorganized attachments (Bateman & Fonagy, 2004). Patients with BPD, according to Ohshima (2001) are more demanding, manipulative, and have poor conflicted relationships with medical personnel than non-BPD patients. This intense interpersonal dynamic is likely to impact significantly on the treatment regimens of BPD.

As stated previously, BPD patients are high-users of mental health facilities, and as such present frequently for treatment, but often characteristically miss psychotherapy sessions or arrive late (Layden, 1993). Consequently, their behaviour is interpreted as a paradoxical attempt to sabotage their therapeutic trajectory. The tendency of the BPD patient to use primitive defence mechanisms of splitting and projective identification (Puri, Laking, & Treasaden, 2002) results in their relationships being all-good or all-bad. This property of their interpersonal relationships includes their

relationships with their psychologist, psychiatrist or other health-care practitioners, making it exceedingly difficult to form a durable working collaborative alliance with the patient.

Gunderson (2000) reports that research conducted into the alliance formed between BPD patients and their psychotherapist, has demonstrated generally higher scores for degree of alliance at the outset of therapy, but that research has yielded mixed results as to how stable the alliance remained longitudinally. Additionally, given the BPD patient's tendency to oscillate between idealization and devaluing (Guttman, 2002), medical and health recommendations made by professionals are either likely to be revered or ignored by the patient. Consequently, a vacillating pendulum-like dynamic ranging from adherence to ignorance could be set in motion.

As such, the proposed theoretical study will attempt to address the need for identifying pathways between personality pathology and non-adherence to HAART, by providing a theoretical exposition of the potential link between the stipulated criteria for a diagnosis of BPD to be made, as determined by the DSM-IV-TR (2000) and the potential ways these characteristics may affect adherence.

3. Borderline Personality Disorder and adherence

This section of the thesis aims to integrate the literature on treatment adherence to HAART and the potential impacts on adherence implicated in each of the diagnostic criteria of BPD as stipulated by the DSM-IV-TR (2000). The section is organized so that it follows the list of criteria required for the diagnosis of BPD.

The DSM-IV-TR (2000, p.706) criteria for making a diagnosis of BPD are two-fold. Firstly, the symptoms identified must meet the diagnostic criteria whereby a "pervasive pattern of instability of interpersonal relationships, self-image, and affects; and secondly, marked impulsivity beginning by early adulthood and present in a

variety of contexts must be exhibited in addition to at least five of the following:

3.1. Criterion 1

The first criterion is evidence of frantic efforts to avoid real or imagined abandonment. Clinically, this can lead to profound changes in self-image, affect, cognition and behaviour when pending separation, rejection, or loss of external structure is perceived.

The patient with BPD may be exquisitely sensitive to rejection or perceived loss of the medical physician or any other person whom the patient has an attachment to. Consequently, if the attachment figure were perceived or experienced as being lost, the patient would be expected to have a number of significant psychological changes associated with the loss. This loss of the physician is likely to be experienced often in the South African public health care system where patients are treated by students and interns who rotate at regular intervals within the health system. Given that HAART is primarily dispensed at public institutions (Opie, 2005), patients with BPD will be confronted with this dynamic regularly.

The changes associated with loss may influence the patient's ability to adhere to HAART in that the patient, in the context of the loss, functions in a state of psychological disequilibrium that impedes their ability to function effectively and functionally. Adherence to HAART is likely to become of peripheral importance to the patient, with the primary goal being to avoid the abandonment. The patient with BPD may also reject the HAART as a symbolic representation of the abandoning clinician, or the patient may project their feelings of rejection onto the HAART because it is associated with the clinician. Adherence would likely remain of secondary or even tertiary importance until the relationship with the attachment figure is restored, which is likely to be problematic in

the public health system. Not only HAART adherence, but a large number of areas of functioning will likely be influenced by this dynamic.

3.2. Criterion 2

The second criterion is a pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation. Patients with BPD may idealize caregivers and demand to spend a considerable amount of time with them. Additionally they may offer empathy to caregivers, on condition that it is reciprocated.

The patient with BPD may form an intense, but unstable bifurcated relationship with, amongst others, their medical physicians. Similarly, they are prone to acutely dramatic shifts in their views regarding others, and will vacillate between idealization and devaluing of them. When idealizing, the patient is likely to adhere to their medication, whereas when devaluing, the patient is likely to ignore medical advice or minimize the importance of adhering as per instruction. They may justify their behaviour by projecting hostile feelings toward the self onto the physician, which will facilitate a dismissive attitude towards the physician's prescriptions. A pattern of unstable and unpredictable adherence could be set in motion as a function of their turbulent relationships with both their treating physicians and other attachment figures.

3.3. Criterion 3

The third criterion is possible identity disturbance evidenced by strikingly and persistently unstable self-image or sense of self. There is evidence of acute and marked changes in self-image manifesting in superficial goals and values.

This could influence the patient with BPD in terms of their motivation to treat the HIV. Due to the instability regarding their

sense of self, they may not be able to develop coherent goals for their life that they are committed to. Thus, adherence to HAART could be of compromised concern to them due to the lack of direction as opposed to those patients who have a stable sense of self. It has also been documented that patients with BPD often underestimate their abilities as a goal is being realized, which impedes the attainment of that goal. This may be a function of an unstable self-image. In terms of adherence, the patient may thus initially adhere to their HAART, but when physiological goals are within reach as measured by indices such as CD4 counts and viral loading, the patient may not follow prescriptions, with adherence being compromised.

3.4. Criterion 4

The fourth criterion is impulsivity in at least two areas that are potentially self-damaging. For example, the person with BPD may impulsively and irresponsibly spend large amounts of money; be sexually promiscuous and take part in unsafe sex practices; abuse substances; drive recklessly or binge eat.

HAART requires strict long-term, chronic adherence (Chesney, Morin, & Sherr, 2000; Albus, Schmeißer, Salzberger, & Fätkenuer, 2005; Vieira, Rebocho, Sousa, & Azevedo, 2003; Belzer, Fuchs, Luftman, Tucker, 1999). The patient with BPD may experience tremendous difficulty in maintaining this stability given their vulnerability to poor impulse-control. Consequently, sporadic intervals of impulsivity will affect adherence. In other words, the patient may delay taking their medication accurately in favour of another impulsive behaviour. Additionally, given the complex and demanding nature of HAART regimens, adherence requires planning and the ability to inhibit myopic impulses that affect the execution of that plan in order to adhere correctly. For example, a patient with BPD who abuses substances impulsively directly compromises their

ability to adhere to HAART, given the constitutional effects of substances on one's behaviour and cognition. As such, the BPD patient may compromise adherence for the gratification of another more dominant, impulsive behaviour. Another possibility is that the patient not taking their HAART might be an impulsive behaviour in and of itself without other more dominant impulses being present.

Similarly, the values of patients with BPD are prone to dramatic shifts. The importance they place on physical health and immune reconstitution may fluctuate from being of utmost importance to being of little or no significance to them. Thus they may focus all their energies on taking the medication correctly on the one hand, to being indifferent and nonchalant regarding adherence on the other. The result of this dynamic is that the medication is not taken as prescribed, but rather is taken when it is important or of value to the patient.

3.5. Criterion 5

The fifth criterion is recurrent suicidal behaviour, gestures, or threats, or self-mutilating behaviour. This behaviour is often precipitated by an expectation of increased autonomy or threat of rejection. Self-mutilation, such as burning or cutting, in patients with BPD is common. Clinically patients often present for help in the context of recurrent suicidal ideation.

The patient with BPD may not adhere to HAART as a manifestation of a suicidal threat. In other words, if the patient is aware of the immunological sequelae following poor adherence, they may become noncompliant as a suicidal gesture. Consequently, a precarious pattern could develop whereby the patient either stops taking their medication or does not take it correctly every time they feel suicidal. Their motivation could either be to develop a treatment-resistant virus as a means of indirectly committing suicide, or given the urgency of their suicidal ideation

they may not have the capacity to appreciate the need to take chronic medication in the service of life preservation.

Patients on HAART will be expected to take their medication independently. However, the patient with BPD may have an increased need for a caregiver given the fact that they have a physical illness. This potential need coupled with the responsibility of taking their medication may predispose the patient to further suicidal ideation if such a care giver is absent or restricted in what they can offer to the patient. Additionally, if potential rejection is perceived, they may not take their HAART as a means to indicate their apparent need for an attachment figure to take care of them, thus securing the return of the attachment figure.

3.6. Criterion 6

The sixth criterion is evidence of affective instability due to marked reactivity of mood. For example, intense episodic dysphoria, irritability, or anxiety usually lasting a few hours and only rarely more than a few days. While the predominant mood of patients with BPD is dysphoric, it is regularly interrupted by intervals of anger, panic or hopelessness. Moreover, these intervals are not usually relieved by feelings of well-being or satisfaction. This characteristic might be due to the acute sensitivity of patients with BPD to interpersonal stressors.

The poor regulation of affect may significantly influence adherence to HAART in that their behaviour may be mood-dependent. A patient who is feeling acutely dysphoric may not want to take their medication based on their mood, and thus the patient does not take it. In other words, their motivation to take the medication may fluctuate as a function of the way they feel. Due to the intense discomfort they are feeling, their ability to execute rational behaviour may be compromised. Additionally, the deleterious side-effects of HAART could exacerbate the patient's

uncomfortable affect. Thus non-adherence could function as an avoidance mechanism of compounding the dysphoria.

The patient may also have learnt, through a complex combination of classical and operant conditioning that the medication results in their affect being worsened. Given that the patient with BPD is susceptible to affective dysregulation, the chances that they will be dysphoric during and following the ingestion of HAART are high. The patient may thus misattribute the dysphoria directly to the HAART and associates the medication with the negative affect. Consequently, the patient avoids taking the medication as a means of reducing discomfort.

3.7. Criterion 7

The seventh criterion is evidence of chronic feelings of emptiness. Patients with BPD may become bored easily and consequently seek something to do.

Similarly, they may also get bored with their HAART medication and thus not take it as prescribed, or seek other treatment options that are not a component of the HAART regimen, which seem more novel. Given their feelings of emptiness they may question the purpose of the medication, which in turn could result in nonadherence. The patient may also mistakenly believe that the HAART may attenuate the feelings of emptiness and boredom. When the patient realizes that this is not the case and the feelings are not going away, they may terminate treatment.

3.8. Criterion 8

The eighth criterion is evidence of inappropriate, intense anger or difficulty controlling anger. For example, frequent displays of temper, and constant, recurrent physical fights that are often elicited within the context of relationships. Patients may become extremely sarcastic or bitter, and display verbal outbursts. This

behaviour is often precipitated by the perception of an attachment figure being neglectful or abandoning.

The intense anger that patients with BPD experience toward attachment figures is likely to extend to their medical practitioners too. When experiencing this anger the patient may not take their medication as prescribed, but rather dismiss or ignore the advice or medical protocols prescribed for them. This is likely to happen frequently given the restricted access the patient will have with their physician. This dynamic is likely to dovetail closely with feelings of devaluing toward attachment figures.

3.9 Criterion 9

The ninth criterion is evidence of transient, stress-related paranoid ideation or severe dissociative symptoms as well as other symptoms including hallucinations and ideas of reference.

Whilst these symptoms are not usually severe enough to warrant a separate diagnosis, they are also likely to influence adherence. Given the complex and demanding nature of HAART regimens (Remien & Rabkin, 2002), a patient who experiences episodes of depersonalization and other dissociative symptoms may experience a significant amount of difficulty in adherence. It will likely have an impact on their self-image, and their sense of stability may be disrupted. A poor sense of stability will likely impact on adherence in that their ability to develop and sustain systematic behavioural patterns needed for HAART adherence will be lowered. Additionally, they may be preoccupied by these dissociative symptoms and either forget to take their medication at the correct time or not realize the importance of taking the medication given compromised reality-testing abilities when dissociating.

On the other hand, a patient with BPD may incorporate their HAART into their delusional/paranoid system and consequently decreases the likelihood of adherence. A vicious cycle may develop

whereby the patient sets up self-fulfilling prophecies. In other words, the patient may, for example, believe that the HAART is compounding the progression of the HIV and thus stops taking the medication. The result is that the HIV is likely to become resistant to the HAART, and the patients health declines, confirming their delusion.

The criteria for making a diagnosis of BPD have been considered separately, but it must be borne in mind that the patient diagnosed with BPD must have five of the criteria. Consequently the individual criteria do not function in isolation from each other in a vacuum, but rather occur simultaneously within the same patient. As such, delineating the impact or attempting to formulate the specific means in which adherence is a function of the respective criterion is limited. It is highly likely that the individual criteria interact with one another creating a gestalt-like effect, thus exponentially compounding the dysfunctional effects of each criterion on the patient's life and their adherence to HAART. Teasing out the specific role of each criterion is thus likely to be more accurate when dealing with each clinical presentation individually. However, it does seem likely that the properties of BPD have the potential to have devastating influences on the patient's ability to adhere optimally to their HAART.

Conclusion

It is well documented that patient adherence to medical advice and prescription medication is suboptimal. While the reasons accounting for noncompliance are varied and complex, it is essential that they be expounded to facilitate the efficacy of medical interventions. In no other illness is this more pertinent than with HIV. HAART has become the first line of treatment for HIV, but stringent adherence is a prerequisite for therapeutic efficacy. As with other treatments, adherence to HAART is problematic. One

factor that may play a significant role is if the patient has a comorbid psychiatric illness. Specifically, this thesis has aimed to illustrate how a patient with BPD might suffer innumerable exigencies with adherence as a function of the individual properties of their illness, which is likely to be compounded when the properties interact with one another.

Recommendations

Given the paucity of research into the role of personality pathology on adherence to HAART, attention must be focused onto this area. The specific means in which Axis II disorders may influence, both directly and indirectly an individual's ability to comply with medical advice needs to be expounded further. This understanding will allow medical interventions to be designed and implemented with a patient's psychological milieu in mind. Specifically, the need for interventions to be designed for HIV+ patients with BPD are two-fold: not only do these patients pose a significant risk for on-going transmission given their tendency towards sexual promiscuity and unsafe sex practices, but poor adherence means that they can transmit treatment-resistant strains of the virus. Thus, effective interventions will have significance for both individual but also social health.

Limitations of the study

There are a number of limitations of this theoretical study. Firstly, the criteria for making a diagnosis of BPD and their influence on adherence were considered individually. As stated previously, it is highly likely that these criteria interact creating a synergistic effect on the patients ability to adhere. This does lend weight though to the argument that a patient with BPD is compromised in their ability to adhere to HAART.

Secondly, reliable and valid epidemiological figures regarding the prevalence of BPD in South Africa are not readily available, and thus the relevance of the study cannot be supported by these figures. Thirdly, only BPD was considered and not other Cluster B disorders, which may confound the implications given that many of the cluster B disorders have common features. Consequently, conclusions drawn by this paper may well be extended to other Cluster B disorders too.

Fourthly, the role of HIV on BPD has not been discussed. It has been assumed that a linear relationship exists between BPD and adherence, but other relationships and variables have not been explored. For example, a circular relationship may develop whereby BPD affects adherence, and the HIV constitutionally exacerbates the BPD which in turn further exacerbates nonadherence.

Significance of the study

This study highlights the need for research to be conducted into the interplay of Axis II and Axis III disorders, with specific reference to adherence to HAART. Given that South Africa has the largest HIV infected population in the world implies that all variables influencing the progression and treatment of the epidemic need to be addressed. Specifically, this paper underscores the importance of taking into account the psychological context of the patient with HIV and that effective treatment of the illness is not limited to the somatic, but must consider a broader understanding, with specific reference to personality and its associated pathology.

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