# MENTAL HEALTH CO-MORBIDITY IN PEOPLE LIVING WITH HIV IN SOUTH AFRICA – STEPS TOWARDS A SYNTHESIS OF INTERVENTIONS AND POLICY ADVANCEMENT

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## ABSTRACT

### *OBJECTIVE*

Mental health disorders are prevalent in HIV-infected populations, ranging from 43-56%, compared to about 30% of the general population. This comorbidity may exacerbate the progression to HIV/AIDS by increasing viral load, reducing CD4 count, and reducing adherence to ARVs. Despite the well established relationship between mental health and HIV/AIDS, and the World Health Organization (WHO) recommendation that attention to the psychosocial needs (which includes the prevention and treatment of mental health problems) of people with AIDS should be an integral part of HIV care, mental healthcare is yet to be integrated into primary care HIV treatment programmes in South Africa and other poor resource countries.

### *DESIGN AND PROCEDURE*

The Rorschach inkblot test was conducted on a convenience sample of four South African HIV positive participants. Furthermore, a situational analysis was conducted from 2011-2013 to determine the context of mental health/HIV services in the Tshwane-Metsweding area, South Africa.

### *RESULTS AND RECOMMENDATIONS*

Outcomes suggest that there is a high rate of psychological comorditity in HIV infected individuals (such as mood disorders, personality disorders etc.), that there is a need to further develop and pilot test appropriate materials and models of delivery of mental healthcare within the parameters of affordability, acceptability and availability, and to advocate for the advancement of mental health and HIV policy integration.

## KEY TERMS

HIV, AIDS, mental health, South Africa, Rorschach inkblot test, systems strengthening, policy advancement

## INTRODUCTION

Infection with HIV has been consistently linked with poor mental health. The rates of mental disorders in HIV infected populations are in excess of that found in the general adult population. In a case-control study, Adewuya et al. (2007) reported a rate of 59.1% for psychiatric disorders compared to 19.5% in participants without HIV. In South Africa, prevalence of psychiatric disorders in HIV-infected populations range from 43-56% compared to about 30% in the general adult population (Olley et al., 2003; Olley, Seedat & Stein, 2006; Freeman, Nkomo, Kafaar & Kelly, 2007; Stein et al., 2008). In some patients, especially in resource poor settings, psychiatric disorders are the initial presenting clinical manifestation of HIV disease.

## BACKGROUND

There is evidence of a high HIV seroprevalence in persons with serious chronic mental illnesses. In South Africa; Collins, Berkman, Mestry and Pillai (2009) found a seroprevalence rate of 26.5% in patients admitted to a public psychiatric hospital, while in Uganda; Maling, Todd, Van der Pool, Grosskurth and Kinyanda (2011) reported a rate of 18.4% amongst first time psychiatric admissions in two national referral hospitals.

Several mechanisms have been implicated in the complex relationship between HIV and mental health. HIV is known to directly infect the central nervous system leading to the neuropsychiatric complications such as minor cognitive and motor disorder, HIV associated dementia and mood disorders. The high prevalence of psychiatric disorders reported in people living with HIV and AIDS (PLWHA) may actually reflect high rates of pre-existing mental and substance use disorders in demographic groups at increased risk for HIV (Burnam et al., 2001). On the other hand, emotional distress, depression and anxiety may be a response to the initial crises of learning about HIV status or to the subsequent development of symptoms and associated disability, or may be related to the unwanted effects of anti-retroviral therapy (Atkinson & Grant, 1994; Owe-Larsson, Sall, Salamon & Allgulander, 2009). Factors that have been associated with increased likelihood of having a psychiatric disorder include the number of HIV related symptoms, viral load, younger age, heavy alcohol use, unemployment and living alone.

Depression is usually the most prevalent psychiatric diagnosis among HIV-infected patients, there is a 2-7 times increased likelihood for a diagnosis of depression in patients with HIV compared to the general population (Owe-Larsson et al., 2009). The prevalence rate ranges between 3%-35% in African studies (Myer et al., 2008; Olley et al., 2006, Marwick & Kaaya, 2010; Maj et al., 1994), the rates reportedly increase with clinical stage or progression of the HIV disease (Maj et al., 1994; Freeman et al., 2007). The diagnosis of depression is sometimes

difficult in patients with HIV due to the overlap in some symptoms for example fatigue, pain, anorexia and insomnia (Dube et al., 2005).

Depression in HIV/AIDS is associated with poor adherence to antiretroviral therapy, reduced quality of life and increased mortality (Mast et al., 2004; Nakimuli-Mpungu, Mutamba, Othengo & Musisi, 2009). Poor adherence to highly active antiretroviral therapy (HAART) has been linked with poor outcomes including increased viral load, viral resistance, clinical progression to AIDS, opportunistic infections and increased hospital admissions. Early detection and appropriate interventions for depression will be important in efforts to achieve optimal adherence to HAART.

Rates of manic illness are increased in HIV/AIDS especially with progression of symptoms. Mania in patients with AIDS is related to cognitive impairment, immunosuppression (indicated by low CD4 cell counts) and is thought to result from direct CNS infection by HIV (Nakimuli-Mpungu, Musisi, Mpungu & Katabira, 2006).

The prevalence rates of anxiety disorders are commonly elevated in patients with HIV infection and are often comorbid with depression. Anxiety syndromes typically manifests as post traumatic stress disorder (PTSD), generalised anxiety disorder (GAD), mixed anxiety and depression and phobias. PTSD has been documented in up to 20% of patients; and it is associated with a greater number of life events (Olley et al., 2006).

There are very few studies that have investigated the occurrence of psychotic symptoms in HIV/AIDS in Africa. The few available studies suggest that the pattern of occurrence is similar to that in other settings. It is a relatively uncommon psychiatric manifestation of HIV and appear more often in later stages of the disease (Säll, Salamon, Allgulander & Owe-Larsson, 2009). Psychosis in HIV infected populations are associated with untreated HIV infection, cognitive impairment, HIV associated dementia and a past history of psychiatric or substance use disorder (Owe-Larsson et al., 2009).

Despite the well established relationship between mental health and HIV/AIDS, and the World Health Organization (WHO) recommendation that attention to the psychosocial needs (which includes prevention and treatment of mental health problems) of people with AIDS should be an integral part of HIV care, mental healthcare is yet to be integrated into HIV treatment programmes in many African and other resource poor countries (Collins, Holman, Freeman & Pattel, 2006). Considering the fact that mental health resources and professionals are lacking across Africa, effective delivery of mental healthcare to persons with mental illness can only be achieved by strengthening the capacity of those working within HIV prevention and treatment programmes to recognise and treat mental health problems.

There is also a need for well-designed studies to increase the evidence base of the interactions between mental illness and HIV/AIDS at various stages of the disease in Africa and other resource poor settings where the disease is most prevalent. It is also important to increase

awareness that mental health constitutes a major barrier to reducing the spread of HIV infection, preventive efforts including the uptake of counselling and testing services and adoption of low risk behaviours, adherence to HAART and ultimately survival (Prince et al., 2007). This can only be achieved when empirical evidence from locally conducted research becomes available to guide the formulation of effective policy and intervention strategies.

## RESEARCH OBJECTIVES AND METHODOLOGY

Strategies to address HIV and psychological comorbidity are not well understood, and this impacts on programming and service delivery. Many theorists believe that emphasis on individualisation in treatment is accomplished through making appropriate judgements about psychometric results which yield important information regarding an individual's psychological experiences and functioning (Butcher, 1997). The study aimed to obtain evidence relating to the psychodynamics in four HIV infected individuals, by means of the Rorschach inkblot test, and to inform the design of clinical programmatic interventions that address the issue of HIV and psychological comorbidity. A convenience sample was obtained, and Rorschach data was subjected to actuarial analysis according to the Exners' (2003) Comprehensive System by means of the RAP3. A clinical interview was also undertaken, as well as information relating to the medical HIV staging of the participants, however, this information was used as collateral information and did not form part of the actuarial analysis. Furthermore, a situational analysis was conducted from in 2011-2013 by the investigator and other consultants at her former place of employment – the Foundation for Professional Development (FPD), in order to determine the context of mental health in HIV treatment services in the Tshwane-Metsweding district, in facilities supported by FPD. The aim of this endevour was to develop and implement an intervention to improve the physical and mental status of people with comorbid HIV infection and mental disorders who attend primary care HIV treatment sites. An initial pilot project was initiated in the Tshwane-Metsweding region of Gauteng. The intervention was piloted at 5 sites: Soshanguve 3, Phedisong and Laudium Community Health Centres, Kalafong Hospital and at the free-standing ART site situated on the grounds of Cullinan Care and Rehabilitation Centre. The project used existing staff and services as far as possible. The project consisted of 4 phases: conceptualisation; baseline survey and training; on-site supervision, consultation and monitoring, and evaluation. Ethical approval for the study was obtained from Texila American University in July 2011 and the Foundation for Professional Development in January 2012.

## CASE STUDY, SITUATIONAL ANALYSIS AND PILOT PROJECT FINDINGS

Providing an ambiguous stimulus to an individual and allowing him or her to tell the examiner what the stimulus might be and why it might be that is perhaps one of the most ingenious ways to access the person's inner world of thoughts, feelings, wishes, impulses and ideas (Huprich, 2006). However, it is to be expected that any device, which lays claim to the assessment of

personality, cannot, by virtue of its object, yield completely consistent results. Although mindful of the inherent limitations pertaining to consistency, Rorschach exponents have pointed out that a satisfactory degree of stability is to be found in this case. The outcomes of the study highlight complex psychological dynamics (psychopathology) in the case studies – including signs of mood disorders (inclusive of possible clinical depression and bipolar disorder), potential personality disorders (for example, Narcissistic Personality Disorder)and a degree of reality testing and/or cognitive deterioration in some of the participant protocols. There are indications that the Rorschach can make a meaningful contribution to the complex process of determining whether an individual has, for example, a personality disorder, despite the fact that each DSM 5 personality disorder criterion is not directly represented on the Rorschach inkblot test (American Psychiatric Association, 2013; Huprich, 2006).

The study findings thus suggest the need for further research relating to HIV and mental health comorbidity, and to develop and evaluate psychosocial interventions, which can be integrated into management of communicable and non-communicable diseases such as mental health illness and HIV/AIDS. Healthcare systems should be strengthened to improve delivery of mental healthcare, by focusing on existing programmes and activities, such as those which address the prevention and treatment of HIV, TB, and malaria; gender-based violence; antenatal care; integrated management of childhood illnesses and child nutrition; and innovative management of chronic disease.

An explicit mental health budget needs to be allocated for such activities. Mental health affects progress towards the achievement of several Millennium Development Goals, such as promotion of gender equality and empowerment of women, reduction of child mortality, improvement of maternal health, and reversal of the spread of HIV/AIDS. Mental health awareness needs to be integrated into all aspects of health and social policy, health system planning, and delivery of primary and secondary general healthcare (Prince et al., 2007).

The intervention consisted of training in modules for all levels of staff working in selected HIV treatment services and selected mental health services. This was followed by on-site mentoring and further training. Liaison with health service managers took place throughout to facilitate the project. Various aspects of the intervention were evaluated to determine whether such an intervention could be sustainably implemented in other districts.

Although health information systems did not record important mental health data, a retrospective record review and a patient survey demonstrated that up to 30% of patients have symptoms of possible mental disorder, but less than 4% of records reviewed documented the presence of such symptoms. Approximately 100 staff members in the Tshwane District Health Services (DHS) received training in various aspects of HIV and mental health. These included training in screening for and identifying common mental disorders, HIV dementia and serious mental illness in PLWHA who attended the DHS; training in management of PLWHA with mental disorders; training in management of HIV and tuberculosis (TB) in people with mental illness; training in

basic counselling skills as well as psychotherapeutic interventions for PLWHA and mental disorder. Assessment of knowledge before and after training demonstrated that participants increased their knowledge, and in the case of HIV doctors and nurses retained that knowledge over a six-month period. On-site mentoring was provided to a limited number of participants only. However, there was an improvement in the clinical skills of participants who attended mentoring sessions.

The pilot project identified the following strengths and opportunities: the general structure of HIV services are well organised and run, the staff working in these services are committed and hardworking, there is a mental health service available on site at 4 out of the 5 sites, it appears that good use is made of social workers and psychologists where they are available, and there is already a screening question for mental disorder on first assessment. Furthermore, the political climate in South Africa is in favour of a mental health intervention at this time, managers at all levels are supportive of this intervention, generally a positive attitudes to a mental health intervention from all involved, and this is an opportunity for mental health services to be integrated into primary level services on a broader scale.

Apparent weaknesses and threats include the insufficient information on prevalence of mental disorders at these sites, the lack of indicators in the existing information system in order to monitor the impact of the intervention, staff do not have sufficient knowledge and skills to screen for, identify and manage common mental disorders, and insufficient mental health services or in some cases, poor communication between HIV and mental health services. There is also no formal relationship between the services. The following threats were further discerned: lack of time for training, lack of resources – staff shortages and high turnover of staff, high patient numbers, additional burden on overstretched mental health services as a result of increased identification of mental disorders requiring intervention, and there is very limited psychotropic medication in the ART clinics piloted in – only amitriptyline, a tricyclic antidepressant with significant side-effects and interactions with ARVs.

In summation, there were significant challenges in implementing the intervention. Many of these were health system related or due to the heavy workload and inadequate resources in the DHS. The pilot project outcomes indicate that it is not possible to implement such an intervention in current circumstances without dedicated staff to advocate for such interventions and to provide training and support to staff in the DHS. Furthermore, the need for further studies on the psychodynamics of PLWHA and impact of such combination mental health and HIV/AIDS interventions on PLWHA are necessary.

## DISCUSSION AND RECOMMENDATIONS FOR POLICYADVANCEMENT, PRACTICE AND RESEARCH

World Health Organization estimates of the global burden of disease have helped to raise awareness of the enormous effect of mental disorders, both in their own right and relative to

other health conditions such as HIV (World Health Organization, 2009). Much of this effect arises from the commonest disorders, especially depression and alcohol use disorders. However, the Cartesian dualism that is implicit in the methods used to generate these estimates has meant that what began as a blessing is now, in some respects, a bane. In reality, the interactions between mental disorders and HIV/AIDS are widespread and complex.

Mental disorders are risk factors for the development of communicable and non-communicable diseases, and contribute to accidental and non-accidental injuries. For some infectious diseases such as HIV/AIDS, mental disorders in infected persons increase the risk for transmission. Health conditions such as HIV/AIDS increases the risk for mental disorders, and can lengthen episodes of mental illness (Thom, 2008).The resulting comorbidity complicates help seeking, diagnosis, quality of care provided, treatment, and adherence, and affects the outcomes of treatment for physical conditions such as HIV/AIDS, including disease related mortality. For many health conditions such as HIV/AIDS, mental illness makes an independent contribution to disability and quality of life (Chisholm et al., 2007).

Mental health is missing from the policy framework for health improvement within the South African context - and poverty reduction; missing from health and social research; and missing from targets for interventions. Moreover, mental health has not been acknowledged as an obstacle to achievement of several Millennium Development Goals - notably, promotion of gender equality and empowerment of women, reduction of child mortality, improvement of maternal health, and reversal of the spread of HIV/AIDS, malaria, and other diseases. Mental health awareness needs to be integrated into all elements of health and social policy, health system planning, and healthcare delivery. Sophisticated evidence-based arguments to increase resources for mental healthcare should be linked to evidence for its wider importance to public health (Chisholm et al., 2007).

Integrated mental health policies, applied across all disease categories (not only HIV/AIDS), and to different levels of care and types of care setting, will maximise the effectiveness of the small number of mental health professionals available in most low- and middle-income countries (Saxena, Thornicroft, Knappv & Whiteford, 2007).Such policies will also mobilise the forces of public and community health to work for better mental health and reduce redundancies and budgetary and organisational inefficiencies in overstretched health systems. The strengthening of healthcare systems to deliver mental healthcare should focus, where possible, on existing programmes and activities such as HIV prevention, antiretroviral treatment programmes, treatment of multidrug-resistant TB and innovative chronic-disease management (Epping-Jordan, Pruitt, Bengoa & Wagner, 2004).

Mental health needs to be recognised as an integral component of practice in primary and secondary healthcare. Beyond this, primary healthcare workers need to be trained in recognition and evidence based treatment of mental disorders, and given suitable supervision and support, as indicated the outcomes of the FPD situational analysis and pilot project. Furthermore, basic drug

and psychotherapeutic treatments need to be made available at all levels of healthcare (Patel et al., 2007).

Primary and secondary care providers should overcome their reluctance to treat HIV/AIDS patients with severe mental illnesses, and learn effective ways to interact and communicate with these patients. Inequities in access and provision of good quality physical healthcare for HIV positive people with mental disorders must be ended. The need to promote holistic models of care is imperative, which integrates psychosocial assessments and interventions seamlessly and routinely into the management protocols for major communicable and non-communicable diseases and reproductive and childhood disorders, for example, modelling exercises indicate that up to 20% of infant stunting could be averted if maternal depression was treated more effectively, and that up to 15% of suicides could be averted by interventions to treat major depression (Prince et al., 2007).

By the same token, mental health professionals should routinely assess their patients to identify and monitor physical health problems, should encourage them to attend regular checks in primary care, and should generally place a greater emphasis on lifestyle review and management. Current guidelines about the management of patients given antipsychotic drugs should be applied; for example, patients with schizophrenia should be weighed at every visit. Although more mental health specialists are needed, these might never be sufficient to meet the need, especially in low-to middle -income countries such as in South Africa. The marshalling of this scarce resource will demand careful thought and planning, including clear protocols for referral from primary care (Prince et al., 2007).

Evidence for interactions between mental health and other health conditions comes overwhelmingly from the developed world, especially the United States of America. Although 99% of deaths from HIV/AIDS are in low-income and middle-income countries, nearly all research on the interaction between mental disorders and chronic management of HIV infection comes from the United States of America, furthermore, 99% of deaths from malaria are in low-income countries, and 90% of these are in children aged younger than 5 years (Prince et al., 2007). It has been identified that there is an absence of evidence, rather than evidence of absence, for what could be, by analogy with other evidence, important interactions between maternal mental health, adherence to malaria prevention measures, and prompt and appropriate help seeking for childhood infections (Prince et al., 2007).

A priority, therefore, is to increase the evidence base for interactions between mental health and other health conditions such as HIV/AIDS in low- and middle-income countries. Some existing evidence (for example, that which investigates mental disorders as risk factors and prognostic indicators for non-communicable diseases) might be generalisable to less well-developed settings. However, the evidence on maternal depression and infant growth outcomes is reported mainly from low- and middle-income countries. Only research that is conducted locally can be expected to affect awareness and lead to new policy development.

Second, there is a need to understand better the mechanisms that underlie interactions between mental health and health conditions such as HIV/AIDS, if one is to develop effective public health and clinical interventions. We need to learn from the experience that, in many instances, interventions designed to treat common mental disorders are effective for reduction of the frequency of these conditions, but not for improvement of downstream physical health outcomes with which associations had been reported (Rees, Bennett, West, Davey & Ebrahim, 2004; Glassman et al., 2002;Berkman et al., 2003;Katon et al., 2004; Lin et al., 2006; Lustman, Freedland, Griffith & Clouse, 2000; Rabkin, Wagner & Rabkin, 1999; Rabkin, Rabkin, Harrison & Wagner, 1994).Explicit targeting of illness representations and associated behaviours through cognitive behavioural techniques might be effective.

Third, this study, together with other research, indicates that we are as yet at a very early stage in the studying, development and trialing of adjunctive psychosocial, psychological, and mental health interventions. Despite strong evidence for relevance of mental health to HIV/AIDS, well designed trials to investigate effects of mental illness on the important downstream health outcomes are scarce; for example, presentation for HIV counsellling and testing (HCT), access to and acceptance into HAART programmes, adherence, adoption of low-risk behaviours, virological and immune status, and survival. Further detailed study could highlight the potential capacity for psychosocial interventions to improve HIV/AIDS physical health outcomes. However, the need also exists to act immediately on the existing robust evidence that treatment of comorbid mental disorder is highly effective for improvement of mental health and quality of life outcomes across a range of disorders including cancer (Osborn & Demoncada, 2006), diabetes (Katon et al., 2004), heartdisease (Rees, Bennett, West, Davey & Ebrahim, 2004; Berkman, et al., 2003), and HIV/AIDS (Laperriere et al., 2005;Lechneret al., 2003). The moral and ethical case for redressing the imbalance in provision for people with mental disorders can brook no delay. Practical steps such as those discussed must be accompanied, wherever possible, by high quality assessments of efficacy and cost-effectiveness.

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