HIV and mental health

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Abstract

Despite advances in HIV medicine people living with HIV (PLWH) continue to face many challenges. These include successfully adhering to treatment recommendations to maintain optimal health, negotiating disclosure of HIV status and coping with living with a stigmatised condition, all of which can impact on mental health and wellbeing. Pre-existing mental health difficulties can amplify these challenges. The co-occurrence of HIV and mental illness poses a significant public health problem and represents a challenge for healthcare professionals (HCPs) working in this field. In order to effectively identify and meet the mental health needs for PLWH vigilance, knowledge and enhanced communication skills from nurses are required.

Keywords: mental health, HIV, nurse, healthcare professionals

A. Revalidation

This article has been prepared with continuing professional development (CPD) in mind and can be used to support your revalidation. It is estimated that 4 hours of CPD activity will be required for completion of the reading, 'Time out' activities, the quiz and writing a reflective account in relation to your learning and its applicability to your practice. (You could test your knowledge by completing the self-assessment quiz before reading the article, returning to it afterwards to see how much you have learned.)

B. Aims and intended learning outcomes

This article aims to increase knowledge and confidence when approaching, assessing and assisting patients who might be experiencing a mental health issue. In line with the Standards for Psychological Support for Adults Living with HIV [1] this CPD article is aimed at nurses working at competency Level 1 and working towards Level 2. Level 1 psychological support focuses on general supportive emotional care, supported self-help, signposting and the identification of more serious problems for onward referral.

After reading this article, undertaking the activities and completing the self-assessment quiz you should:

- Have an awareness of current mental health-related legislation and national policy;
- Be able to list the range of potential risk factors for mental health issues and illness, in particular discuss why PLWH might be more at risk;
- Be able to describe some of the current and key trends in mental health in the developed world;
- Be able to describe the inequalities and impact of mental health issues on wellbeing, opportunities and medical outcomes for PLWH;
- Be able to outline the symptoms of depression and common anxiety disorders;
- Be able to explain the picture of cognitive impairment in PLWH in the era of antiretroviral therapy (ART);
- Be able to give an overview of the range of interventions that are evidenced as beneficial in the treatment of and alleviation of symptoms of common mental health problems;
- Be able to explain the extent of your role, and your limitations, as a nurse working in HIV, regarding assessing and meeting the mental health needs of PLWH.

C. Defining mental health

The World Health Organization (WHO) defines mental health as 'a state of wellbeing in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community' [2].

When someone experiences severe and/or enduring mental health problems, they are sometimes described as 'mentally ill' or as having a mental illness. However, these labels can be highly stigmatising and, by medicalising the condition, may also misleadingly imply that mental health problems are solely caused by medical or biological factors.

Notably, there is a positive dimension of mental health stressed in the WHO definition, as contained in its constitution, that is 'health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity'. Based on this, we can understand mental health as being on a continuum, and more than simply being the absence of mental illness. It is integral to health and fundamental to our ability as humans to think, emote, interact with each other, and work and enjoy life.

This article considers mental health issues as reflective of the continuum described above, where there is the potential to impact negatively on daily life even

without necessarily being given a diagnosis of a specific mental illness. However, there are several mental health diagnoses that are disproportionately and commonly seen in PLWH and these are discussed individually: clinical depression; anxiety disorders, in particular post-traumatic stress disorder (PTSD); and HIV-related cognitive disorders.

D. Mental health legislation and policy

Most nurses are familiar with the Mental Health Act (MHA) 1983, which is a key piece of legislation for England and Wales [3]. The rights of individuals who are detained in care under this act are protected under it, including pathways leading to hospital admission, consent to treatment, rights about leaving hospital and aftercare in the community.

Historically, mental healthcare has not had the priority that has been awarded to physical healthcare, has been short of qualified staff and has been deprived of funds relative to other specialties. It was not until the 1990s that policy began to acknowledge this. The Care Programme Approach was developed to provide more intensive support to people with severe and enduring mental illness [4]. There was a new emphasis on promoting public mental health and developing services for children and homeless people. In 1999, the National Service Framework (NSF) for mental health was launched to establish a comprehensive evidence-based service [5]. This was followed by the NHS Plan in 2000, which set targets and provided funding with the aim of making the NSF a reality [6].

In 2011, the UK government published a widely welcomed mental health strategy with six objectives, including that of improving the physical health and experience of care of people with mental health problems, which aimed to reduce avoidable harm as well as stigma. However, effective implementation was inadequate, and alongside an increase in the number of people using mental health services, the initiatives resulted in widespread failings in the provision of services with worsening outcomes.

More positively, and evident over the last 5 years, public attitudes towards mental health appear to have improved. Campaigns such as 'Time to Change' [7] have aimed to increase awareness and heighten understanding of mental health problems within and beyond healthcare services. Furthermore, it is now being acknowledged that mental and physical health require equal status, including equal funding and an emphasis on early intervention.

An independent taskforce developed the 'Five Year Forward View for Mental Health for the NHS in England' (2016) [8]; a national strategy focused on a unified approach to improving mental-health outcomes across the health and care system. The Implementation Plan published in July 2016 set out the actions required to deliver this [9].

Time out activity 1

Go to: www.england.nhs.uk/wp-content/uploads/2016/02/Mental-Health-Taskforce-FYFV-final.pdf and read pages 1–20 (the Executive Summary).

Make your own brief notes on the key points of the 'Five Year Forward View for Mental Health' then compare them to those given in Box 1.

Box 1. Key points from Five Year Forward View for Mental Health [8]

- 24/7 access for crisis intervention by specialist mental healthcare professionals and increased availability of step-down care services
- Focuses on the principle of integration and mainstreaming of mental health where physical and mental health services are seen as equally important, i.e. 'parity of esteem'
- A need for wider preventative action with investment in communities to foster mentally healthy environments. Working together with education, employment and the criminal justice system, for example
- A focus on tackling inequalities at local and national levels
- Investment in future planning with effective use of data and research

Additional work continues to prioritise prevention. There is strategic guidance offered in the 'Future in Mind' report [10] by the Department of Health (DoH) and a number of large-scale initiatives are in evidence.

E. The costs of mental ill-health

The Global Burden of Disease Study (2013) cites mental ill-health as the fourth largest source of disease burden in developed countries, with depression as the mental illness with the highest disease burden [11]. In addition the King's Fund and Centre for Mental Health estimate that 12–18% of NHS expenditure on the treatment and management of long-term conditions is linked to poor mental health and wellbeing [12].

The King's Fund also report on the link between physical and mental ill-health, stating for example, that people with severe mental health problems have an average reduced life expectancy of 10–25 years [13]. Interrelated risk factors include smoking, physical inactivity, obesity, and the side effects of psychiatric medication. Unsurprisingly, people with a mental illness are almost twice as likely to die from coronary heart disease as the general population. Furthermore, treating the physical health issues of people with a mental health problem is more expensive [14].

Cost implications also arise in relation to reduced productivity in the workplace, lost income and lower

educational attainment, in addition to a poorer quality of life and a significantly reduced life expectancy for affected individuals and their families.

Key point

The term 'disease burden' refers to a measure of the gap between current health status and ideal health status. It illustrates the impact of a health problem, measured by a number of indicators, usually financial costs, mortality and morbitity. Disease burden is often quantified in terms of quality-adjusted life years (QALYs) or disability-adjusted life years (DALYs). These both quantify the number of years lost due to disease, for example 1 DALY can be thought of as 1 year of healthy life lost.

F. Incidence and key trends

The Adult Psychiatric Morbidity Survey (APMS) is published every 7 years [15]. Most recently it reported that one adult in six had a common mental disorder (CMD), noting that since 2000, overall rates of CMD in England have steadily increased in women but remained largely stable in men. Other key findings included a 50% increase in reports of self-harming in both men and women and across age groups since 2007, and that since 2007 young females have emerged as a high-risk group, with high rates of CMD, self-harm and positive screens for PTSD and bipolar disorder.

The NHS 'Five Year Forward View for Mental Health' [8] identifies children as being a group that experiences inequity in service provision and with a focus on prevention, they are a key group. The report states that half of all mental health problems have been established by the age of 14 years, and three-quarters are established by the age of 24 years.

Box 2 shows a breakdown of the number of people currently experiencing mental illness by diagnosis, illustrating how commonly these conditions occur.

Box 2. Number of people currently experiencing mental illness

Condition	Incidence (per 100 people)
Depression	2.6
Anxiety	4.7
Mixed anxiety and depression	9.7
Phobias	2.6
Obsessive compulsive disorder	1.3
Panic disorder	1.2
Post-traumatic stress disorder	3.0
Eating disorders	1.6

Source: Mind [16]

One encouraging trend as reported by the previously mentioned Time to Change Campaign [7] is the increasingly positive and understanding attitudes towards mental ill-health exhibited by UK adults over the last 10 years. In addition, people feel more able than before to be open about their mental health problems and are increasingly seeking advice and support. This was also reflected in the APMS report [15], which found that since 2007, people with CMD had become more likely to use community services and are more likely to discuss their mental health with a GP.

Mental health does appear to be emerging as a key political priority. The legal requirement for the NHS to ensure 'parity of esteem' for physical and mental health services has generated significant activity at policy level. The media and high-profile celebrities are also bringing the issue to the fore. Today, 40% of people surveyed say they would be comfortable talking to their employer about a mental health problem, although, nearly half said that they would not, suggesting that there is still some way to go [7].

G. Risk factors for mental ill-health

Mental health affects everybody and changes over time and place, across life-spans and often in response to life events. The mental health continuum in Figure 1 is a helpful way of looking at the fluidity and changing nature of mental health over time. Rather than a straight forward continuum, this model allows for those with a diagnosed mental illness, who are accessing treatment and coping well, to have positive mental health. All people exist somewhere on these two axes.

Time out activity 2

Take a moment to consider the extent to which Figure 1 reflects your approach and attitude to mental health?

The horizontal axis best fits the medicalised approach and the vertical axis reflects a social perspective.

Where does your professional understanding and approach best sit on here?

What does this diagram say about the impact of stigma?

Mental health can be determined by a range of socio-economic, biological and environmental factors, and a variety of factors predispose to certain mental health problems with several strands of inequality worthy of discussion in this section.

Some mental health conditions are more common at different stages in life. Young people, for example, are more likely to use self-harm as a means of coping; schizophrenia emerges more commonly between the ages of 16 and 25 than at any other age; and depression is particularly common in older age [7]. There are also differences between the mental health problems of men and women: women are more likely to experience depression and eating disorders while

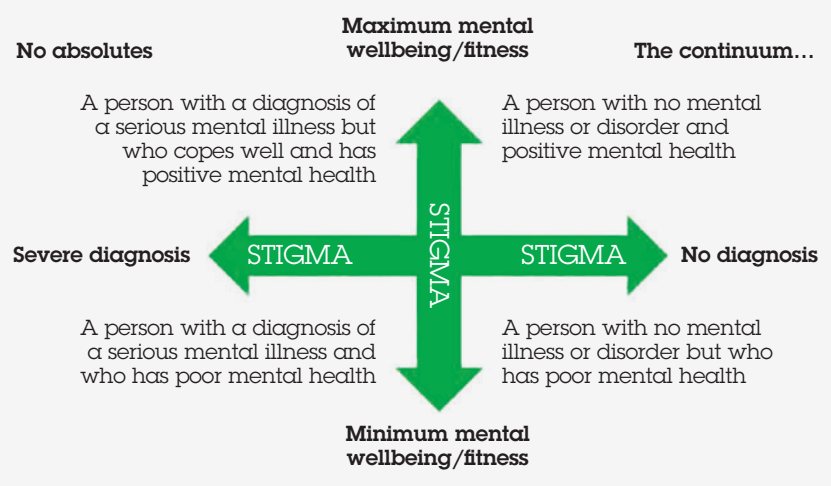

Figure 1: *Adapted from the* Adult Mental Health First Aid Manual *(2016) with kind permission of MHFA England, please visit www.mhfaengland.org for more information*

Box 3. Factors that can protect against development of mental illness

Risk factors	Protective factors
Social alienation (e.g. feeling lonely, isolated, lack of friends and family)	Having close interaction with friends and family Being an active member of a group or community Commitment to some form of religious belief or spiritual practice
Adverse life experiences (e.g. bereavement, especially traumatic event(s) in childhood)	Post-traumatic support and professional intervention
Environmental deprivation (e.g. poor transport, housing and leisure facilities)	Having access to good transport, housing and leisure facilities, the arts and culture
Lack of access to/or uptake of educational opportunities	Access to/or uptake of educational opportunities
Violence and crime in the local community	Feeling safe, secure and in control
Poverty and unemployment	Economic security and employment
Parental mental illness	–
Persistent work stress	Supportive work environment
Poor diet and physical inactivity	Balanced (healthy) diet and physical activity
Biological and genetic factors	–
Emotional neglect or abuse, especially in childhood	Good self-esteem and confidence. Resilience and being able to cope with stress
Physical or sexual abuse	–
Substance misuse	–
Personality traits and thinking style such as being a more sensitive, pessimistic, emotional or anxious individual	–

men are more at risk of suicide, and more likely to use drugs and alcohol as coping strategies.

Box 3 lists factors that can influence and protect against the development of mental illness. The list illustrates the familiar 'nature versus nurture' debate, suggesting interplay between genetic and biological make-up and environmental factors.

H. Inequalities

Concurrent disability and physical illnesses also enhance the risk of mental health problems especially as a result of missed opportunities for social contact and/or employment. Members of this group suffer more medical complications if they also develop mental health problems. There is good evidence that dedicated mental health provision, as part of an integrated service, can substantially reduce these negative outcomes [8].

Mental disorders are more common in those who are not employed. The APMS report states that claimants of unemployment and support benefits experienced particularly high rates of all of the common mental health disorders [15]. People with mental health problems are also often over-represented in high-turnover, low-pay and often part-time or temporary work. People who are homeless and veterans of the armed forces also disproportionately experience mental health problems [8].

People in a number of marginalised groups are at a greater risk, including people from some minority ethnic groups (BME), lesbian, gay, bisexual and transgender people (LGBT), and people who have had contact with the criminal justice system. Often factors merge together to enhance risk further. Furthermore, there is an over representation by members of some BME groups being detained under the Mental Health Act, an anomaly that has been widely reported for many years [17].

The experience of stigma and discrimination is a key determinant in mental health-treatment outcomes and recovery. The WHO stresses that the approach to people with mental ill-health should be fundamentally the same as that to physical ill-health, that is that people have the right to receive high-quality care and should be protected against inhumane treatment and discrimination [18]. Encouraging positive changes in attitudes towards mental health are in evidence as discussed previously.

Key point

Before 2013, people who had been sectioned for more than 6 months were not eligible to be elected as a Member of Parliament. In addition, before the Act became law, people currently receiving treatment for mental health problems could not serve on juries, and company directors could be removed because of a mental illness [19].

I. Common mental health problems

Depression

Depression affects how a person feels, thinks and behaves. Ranging from mild to severe it can lead to a range of emotional and physical problems including feelings of worthlessness and guilt. Behaviour changes include: appetite changes, insomnia or somnolence, fatigue, slowed movements and speech, aches and pains, irritability, difficulty concentrating or making decisions and thoughts of death or suicide.

A depressed mood is a feature of some psychiatric conditions; however, it may also be a normal temporary reaction to challenging life events. It can also be caused by a physical illness such as some infectious diseases, nutritional deficiencies, seasonal change, neurological conditions and physiological diseases like hypothyroidism, multiple sclerosis and diabetes. A depressed mood can also be iatrogenic, for example, due to side effects of a medical treatment.

Assessment

There is a range of more in-depth assessment tools available, however, the National Institute for Health and Care Excellence (NICE) [20] suggests that in the first instance, assessment is simplified to asking two straightforward questions, specifically:

- During the last month, have you often been bothered by feeling down, depressed or hopeless?
- During the last month, have you often been bothered by having little interest or pleasure in doing things?

Dependent on the response and competence of the assessing practitioner, further planned questions may be asked. The use of a more detailed, validated measure is also suggested by NICE [20] as way of informing and evaluating treatment choices. The Patient Health Questionnaire (PHQ-9), Hospital Anxiety and Depression Scale (HADS), the standardised Hamilton Rating Scale for Depression (GRID-HAMD 17) and Beck Depression Inventory (BDI) are given as some examples. Importantly HCPs should not rely on a score alone and need to consider other factors including the degree of impairment, duration of symptoms, individual and family history of mental illness alongside other comorbidities, socio-economic and other circumstances of the individual.

Treatment

A number of recent articles in the media have emphasised the lack of evidence that pharmacological interventions consistently demonstrate on superiority over placebo pills; however, a robust systematic review of data from over 100 published trials concluded that the combination approach using both psychotherapy and antidepressants may provide a slight advantage [21]; whereas antidepressants alone and psychotherapy alone are not significantly different from alternative therapies in terms of benefits. The authors suggest that this implies that the type of treatment offered is less important than involving patients in a therapeutic programme. While some alternative therapies such as acupuncture and exercise have shown benefits, according to an independent review by NICE, their profile remains less impressive [20].

Treatments for which there is supporting evidence of efficacy are summarised in Box 4.

Box 4. Treatments for which there is supporting evidence

- General lifestyle measures such as sleep hygiene, healthy diet, relaxation strategies and exercise [20]
- Cognitive behavioural therapy (CBT) via a stand-alone computer-based or web-based programme [20]
- Group-based CBT [20]
- Psychodynamic psychotherapy [20]
- Pharmacological interventions including selective serotonin reuptake inhibitors (SSRIs), serotonin and norepinephrine reuptake inhibitors (SNRIs), tricyclics and tricyclic-related drugs and monoamine oxidase inhibitors [20]
- Electroconvulsive therapy (for acute treatment of severe depression that is life threatening and when a rapid response is required, or when other treatments have failed) [20]
- Repetitive transcranial magnetic stimulation (RTMS) [20]
- Folic acid and vitamin B12 dietary supplementation [22]
- St John's Wort herbal supplement [20]
- Physical exercise programmes [23]

For those with depression who have not responded to antidepressant medication or for whom antidepressants are not suitable, the current evidence for use of RTMS for depression appears to be adequate, although NICE reports that the clinical response is variable.

Time out activity 3

If you would like to find out more about RTMS visit: www.psychiatrictimes.com/depression/repetitive-transcranial-magnetic-stimulation-depression-changing-landscape.

Exercise has been repeatedly proven to enhance mood through the release of endorphins [23]. St John's Wort may be of benefit in mild or moderate depression; however, NICE advises that practitioners do not prescribe or advise its use by people with depression because of the lack of clarity about appropriate dosing, the variation in the nature of preparations and the potential for serious interactions with other drugs (such as oral contraceptives, anticoagulants and anticonvulsant medications) [20].

There is increasing interest in the influence of dietary factors on mental health. A number of studies have revealed a link between nutritional deficiencies and some mental health conditions, in particular low mood and depression [24], and the body of evidence is growing. The most common nutritional deficiencies seen in patients with mental disorders are of omega-3 fatty acids, B vitamins and some amino acids. Supplements of all three nutrients have been shown to stimulate mood elevation [22,25].

Anxiety and panic disorders

The most commonly diagnosed anxiety disorders are:

- Generalised anxiety disorder (GAD)
- Panic disorder
- Obsessive compulsive disorder (OCD)
- Phobias
- Post-traumatic stress disorder (PTSD)

Anxiety disorders can exist in isolation but more commonly occur with other anxiety and depressive disorders. The main feature of GAD is excessive worry about a number of different events associated with heightened tension and difficulties controlling anxiety symptoms. NICE suggests assessment for diagnostic purposes by referring to the American Psychiatric Association's *Diagnostic and Statistical Manual (DSM-5) of Mental Disorders* for a list of features [26]. Symptoms should be present for at least 6 months and should cause clinically significant distress or impairment in social, occupational or other important areas of functioning [27].

Key point

The 'fight or flight' response, also called the 'acute stress response' was first described by Walter Cannon in the 1920s as a theory based on the reaction of animals to real and perceived threat. Like all animals, humans have evolved strategies for self-preservation from dangerous, life-threatening situations. The sympathetic nervous system causes the release of adrenaline and norepinephrine from the medulla of the adrenal glands because of perceived threat. The released hormones facilitate immediate physical reactions including increased heart and respiratory rates, vasoconstriction causing hypertension, headaches, dizziness, hot flushes, sweating, nausea and diarrhoea.

GAD and panic disorder can follow both chronic and remitting courses. In panic disorders, according to the *DSM-5* [26], a fundamental characteristic is the presence of recurring, unforeseen panic attacks followed by persistent worry about having another panic attack. In OCD, disordered thoughts can come in one or two forms, obsessions or compulsions. The former are often related to fear of failure, contamination or a lack of symmetry and order. These uncontrolled thoughts then lead to the 'fight or flight' symptoms described above. Compulsions are repetitive activities performed as an attempt to reduce the anxiety caused by the obsession. These can be physical actions or mental ritual.

Phobias are overwhelming and debilitating fears leading to an exaggerated sense of danger and subsequent sympathetic nervous system response (fight or flight). Severe phobias often lead the affected individual to reorganise their life in order to avoid the cause of their distress and complex phobias tend to be more disabling than simple phobias. Agoraphobia and social phobia are the two most common, and usually develop in adulthood.

PTSD is usually caused by bearing witness to a traumatic life event. In effect, this undermines the sense that life is fair, reasonably safe and secure. The resulting symptoms are again those of 'fight or flight'. The symptoms of PTSD include 'flashbacks' and nightmares, and being in a continuous state of alert is also common. This hypervigilance causes insomnia, concentration problems and mood disturbance, especially irritability.

As with depression, the advice for all anxiety-related disorders in respect of treatment, involves careful and holistic assessment of the individual's circumstances. Treatments with evidence of beneficial outcomes for anxiety disorder are listed in Box 5.

Box 5. Interventions for anxiety-related disorders

- CBT
- Exposure and response prevention (ERP)/habituation therapy for OCD
- SSRIs
- Benzodiazepines
- Beta blockers and neuroleptics
- Antihistamines
- Meditation, self-hypnosis and imagery techniques
- Aerobic exercise
- Eye movement desensitisation and reprocessing (EMDR) also has evidence for being an effective intervention for PTSD [28].
- Importantly, benzodiazepines, sedating antihistamines and antipsychotics *should not* be prescribed for the treatment of *panic disorder*

Key point

EMDR is a complex psychological treatment method developed by an American clinical psychologist, Dr Francine Shapiro, in the 1980s. During EMDR therapy the client attends to emotionally disturbing material in brief sequential doses while simultaneously focusing on an external stimulus. Most therapists direct lateral eye movements as the external stimulus but a variety of other stimuli, including hand-tapping and audio stimulation, can also be used [29].

J. Mental health in people living with HIV

Considering what has previously been described in terms of risk factors, it is unsurprising that PLWH require support to promote emotional, cognitive and psychological wellbeing. Specifically, psychological difficulties can result from the trauma of receiving the diagnosis itself, the subsequent challenges often related to stigma (such as relationship difficulties and finding and sustaining employment) alongside living with chronic physical ill-health.

The prevalence of some mental health disorders such as depression, anxiety and cognitive impairment are higher in PLWH than in the general population [30]. It has been estimated that the prevalence of serious mental illness (SMI) could be as high as 24% in PLWH [31]. A recent study by Croxford *et al.* revealed that men living with HIV have a rate of suicide double that of the general UK population [32]. Similar rates were found in gay and heterosexual men with rates further elevated in injecting drug users, compared with other groups. The first year after diagnosis was found to be the peak risk period.

Key point

An awareness of the increased risk of suicide is imperative. Suicide rates are greater in men living with HIV than in the general population.

Some concerning data from a meta-analysis of studies of women living with HIV in the US revealed rates of PTSD as high as 30% [33]. This is over five times the national rate of PTSD. Rates of adult sexual and physical abuse were 35% and 54%, respectively with intimate partner violence widespread and prevalence of childhood sexual and physical abuse also high. These figures illustrate the complex inter-relationship between social, economic, psychological and mental health outcomes and are relevant when we start to explore the assessment and management of these issues within HIV care.

Anxiety can be associated with several HIV-related underlying medical conditions including metabolic complications, opportunistic infections, endocrine disorders, steroid-use, and treatments using interferons and interleukin-2, aciclovir and efavirenz.

Importantly, the British HIV Association (BHIVA) reports that symptoms of depression and co-occurring mental illness are under diagnosed and under treated in PLWH [34]. Management of mental health issues in PLWH requires an additional understanding of the prevalence of these disorders and an awareness of the impact that mental health disorders can have on treatment adherence, wellbeing and other clinical outcomes.

K. The impact of mental health on HIV-related outcomes

It is recognised that mental ill-health can lead to significantly decreased quality of life, increased comorbidities and increased mortality. In terms of adherence to treatment, inevitably an inability to think positively about one's future, low self-esteem or disturbed sleep patterns for example, will clearly impact on a person's ability and motivation to adhere to ART [35]. Indeed, one study team carried out multivariate analysis, while controlling for potential confounders, which showed that the only factor associated with excellent adherence was good mental health [36]. A meta-analysis of studies presented at the Conference on Retroviruses and Opportunistic Infections (CROI) in 2017, also suggested that treating depression can improve adherence to antiretroviral therapy [37].

Most adults living with HIV are sexually active [38] and a substantial proportion reports engaging in unsafe sexual or drug-injecting practices at times [39]. In addition, research shows that individuals with serious mental illness are not only more vulnerable to contracting HIV but also more likely to transmit the virus to others [40]. This is due, in part at least, to the impact of mental ill-health on behaviour and decision -making, for example because of mood instability, low self-regard and impulsivity.

HIV is also more prevalent amongst members of vulnerable populations who are already at a greater risk of mental health problems, and the stigma that persists in relation to HIV exacerbates health inequalities.

Time out activity 4

Mental health disturbance in conjunction with an HIV diagnosis presents a number of particular risks and challenges. Take 15 minutes to consider the impact of mental health issues that you have seen in your caseload.

Discuss with a colleague, if possible, then view the list in Box 6 to see if and how your experience corresponds?

Box 6. Summary of the potential impact of poor mental health in relation to HIV disease outcomes

- Decreasing rates of adherence to ART
- Increasing loss of patient engagement/loss to follow-up
- Increased use of alcohol, psychoactive substances
- Poorer health outcomes including clinical decline
- Longer and more frequent hospital admissions
- High-risk sexual behaviour (e.g. condomless sex, buying and selling sex and multiple partners) [41]
- Increased risk of onwards HIV transmission [38]

L. Cognitive function in HIV infection

Cognitive dysfunction can manifest in a range of symptoms from slower information processing, reduced fluency in the use of language, a reduced ability to concentrate, to plan and organise everyday life or to solve problems; to more extreme confusion, changes in personality, mood swings, depression and anxiety. Physical symptoms may also be present, for example an unsteady gait or tremor.

There are numerous potential causes of mild impairment of cognitive functions. These include: cardiovascular disease; respiratory disease; hypothyroidism; dietary trace element deficiencies; and side effects of medication, in addition to the possibility of Alzheimer's disease. Most researchers agree that decreased cognitive performance probably results from a multifactorial process.

In the past, predating HAART, AIDS dementia complex characterised by encephalitis, high viral loads and immune activation in the cerebrospinal fluid (CSF), developed in up to 30% of people with HIV. Now referred to as HIV-associated dementia (HAD), it is seen in up to 15% of people who present very late for treatment and it is extremely uncommon in anyone taking ART reliably. Risks for HAD include older age, decreased body mass, family history of dementia, and persistent physical symptoms of HIV infection [42].

However, less severe neurocognitive impairment, termed HAND (HIV-associated neurocognitive disorders) is still commonly seen, affecting 15–50% of PLWH according to some studies [43]. It is believed that some of this impairment may be due CNS injury that occurs before treatment is started, especially in people with a low CD4 cell count nadir, along with ongoing neuronal injury and chronic immune activation in the CSF. There may also be persistent immune cell activation in the brain causing CNS inflammation. HIV-related cognitive dysfunction can be especially challenging to diagnose where other conditions co-exist. Co-existing factors that may account for or contribute to some neurocognitive presentations are listed in Figure 2.

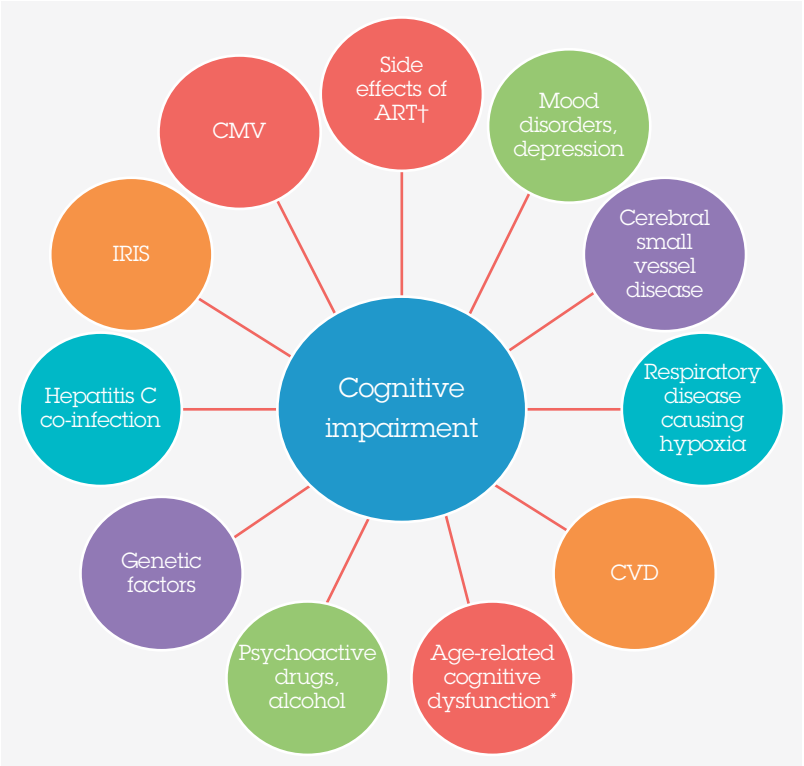

Figure 2: *Potential confounding factors in the diagnosis of neurocognitive disease. CMV: cytomegalovirus; CVD: cardiovascular disease; IRIS: immune reconstitution inflammatory syndrome. *Dementias such as Alzheimer's disease. † For example, efavirenz [44], and some protease inhibitors.*

Time out activity 5

The symposium 'A Beautiful Mind: Keeping It', held at CROI 2016, discussed neurological complications seen in people living with HIV and how the pattern has changed since the development of ART. If you are interested in learning more on this area, take a look at some of the webcasts available via the CROI webcasts portal (www.croiwebcasts.org).

A summary of evidence-based interventions is given in Box 7.

Box 7. Interventions for the prevention and treatment of cognitive impairment

- Initiation of ART during primary infection
- Early treatment in chronic infection
- CNS-targeted ART
- Managing comorbidities (e.g. hepatitis C, diabetes and CVD)
- Adjunctive therapies: studies continue to explore the potential benefits of additional therapies such as valproic acid, lithium, citalopram and atorvastatin
- Reduce immune activation and systemic inflammation
- Research into the benefits of particular ART combinations

M. Antiretroviral therapy and mental health

It is widely acknowledged that ART reduces viral load in CSF and this has led to a fall in the incidence of HIV-associated neurological diseases. While cognitive impairment is still commonly seen, as discussed earlier, many people experience an improvement in their cognitive functioning after commencing ART [45]. Coban *et al.* looked at the impact of advancing age of PLWH who were taking ART with effectively suppressed viral load [46]. In the cohort as a whole, neurocognitive impairment declined over time after starting ART but the odds of impairment were found to increase with age. Being over 40 years of age at treatment initiation and co-infection with hepatitis C were also significantly associated with poorer neurocognitive test results. There was no significant link found with the use of any particular ART drug class. The authors did however suggest that causes of age-related neurocognitive impairment might include the worsening of common age-related conditions such as diabetes, hypertension and abnormal blood lipids due to ART.

CNS complications arising as a result of ART drugs penetrating the blood–brain barrier are a further consideration. Zidovudine and efavirenz for example, are both used to treat patients with CNS complications because of the ability of these drugs to penetrate the CNS. While these treatments themselves have been associated with potentially significant neuropsychiatric complications such as sleep and mood disturbance, a large case series review found that efavirenz exposure was not associated with an increased risk of cognitive impairment in any of the specific cognitive domains that were studied [44].

Time out activity 6

Consider which medical treatments prescribed for your patient population are known to have the potential for depression as a side effect?

What systems are used in your clinical setting to identify, support and manage those affected?

N. Assessment and management of mental health in people living with HIV

Diagnosing and treating mental health problems in PLWH can be especially difficult because of the potential for multiple confounding factors in addition to the pervasive, real and perceived stigma attached to both conditions. A particularly sensitive and holistic approach is therefore required, alongside an appreciation of the range of specific challenges as well as the skills to address these.

Time out activity 7

Take a few minutes to think of some specific challenges faced by healthcare providers in providing high standards of responsive mental health care to people using HIV services? Compare your thoughts to the list in Box 8.

Box 8. Skills required by healthcare providers

- An understanding and appreciation of the impact of the stigma
- Knowledge of the particular experience of population groups most affected by HIV in the UK (i.e. men who have sex with men and black Africans)
- Understanding of the needs of people from black and minority ethnic groups, especially in terms of accessing support
- An understanding of the physical impact of HIV infection and ART, including how this may affect psychological and cognitive function
- An understanding of the needs of lesbian, gay, bisexual and transgender (LGBT) communities
- The need for culturally sensitive support
- The need for expertise and confidence in addressing diverse sexual behaviours for the reduction in risk of onwards transmission

'Fine tuning' interventions for PLWH who present with a mood disorder requires a multidisciplinary approach, often with specialist knowledge, for example, in relation to pharmacological interventions (e.g. drug–drug interactions with ART are to be considered) alongside the effective management of comorbidities. Practitioners need to acknowledge and understand that these specific challenges may not be met, or only partially met, by the generic psychological and psychiatric interventions listed previously in Boxes 4 and 5.

BHIVA guidelines [47] recommend that screening should be conducted regularly to provide a full psychiatric profile with a view to reducing the negative impact of mental ill-health and to maximise adherence and quality of life in this population. A summary of BHIVA's recommendations is given in Box 9.

Box 9. Summary of BHIVA guideline recommendations in relation to mental healthcare

- All PLWH should be assessed to identify their psychological support needs and screened for the presence of mental health problems within 3 months of their diagnosis and annually thereafter
- PLWH should also have access to screening for cognitive difficulties within the first 3 months of receiving an HIV diagnosis
- Robust pathways must be in place for follow-up after initial screening, where problems are identified
- PLWH should also have access to repeated screening following events that may trigger or exacerbate mental distress or cognitive changes
- Where mental health screening suggests difficulties then referral on to suitably competent practitioners should be arranged
- Mental health and HIV services need to work in close collaboration
- A stepped-care model of care is recommended

Source: adapted from the BHIVA guidelines for the routine investigation and monitoring of adult HIV-1-positive individuals [47]

BHIVA guidelines work in conjunction with the 'Standards for Psychological support for adults living with HIV', which were published in 2011 [1].The document provides a framework to guide good practice, focusing on the promotion of mental health and wellbeing. It provides eight concise standards and guidance on the early detection of psychological difficulties and the provision of appropriate interventions, written in line with the principle of mainstreaming mental health as mentioned earlier, in Section D.

Time out activity 8

The stepped care model is the recommended approach for the provision of psychological support provision for PLWH [48].

It is available at: www.nice.org.uk/guidance/cg113/resources/stepped-care-for-people-with-common-mental-health-disorders-commissioning-guide-561922205893

Look at the diagram on page 11. Now write brief summary notes to outline the approach this model adopts and what it includes.

The European AIDS Clinical Society (EACS) guidelines [49] also provide useful tools, for example in the form of a detailed 'algorithm for diagnosis and management of HIV-associated neurocognitive impairment in persons without obvious confounding conditions' as well as comprehensive advice for the screening and management of depression in PLWH.

Time out activity 9

Visit the EACS website and download version 8.2 (2017) of the guidelines if you do not already have a copy [49].

Look at pages 64–68 and consider the relevance to your daily practice.

O. Role of HIV nurses in mental health management

High-quality nursing care requires vigilance, not only of the physical health requirements but also of the mental health needs of PLWH. The first step is recognition. Being aware of the high likelihood of comorbid mental health conditions and knowing that these increase risk for several negative outcomes must be a priority aspect of care. Having a basic understanding of the diagnosis and treatment of common mental health issues and a willingness to work alongside the multidisciplinary team and mental health professionals is a fundamental aspect of the nurses' role.

Nurses have the clinical knowledge, the communication skills and a holistic overview of the individuals in their care and are, therefore, well placed to assess needs and deliver a range of interventions to promote and support mental health. Robust assessment and referral processes need to be embedded in practice to prioritise and facilitate positive mental health and wellbeing for all those accessing HIV services.

There are a wide range of interventions within the HIV nurses' scope of practice. The focus for the nurses' role is as much about promoting and supporting mental wellbeing for all, as it is about assessment and provision of care for those experiencing mental ill-health. Suggested interventions are outlined in Box 10, although the list is not exhaustive.

Box 10. Suggested interventions

- Support for self-management
- Re-engagement for those with poor attendance/lost to follow-up
- Care co-ordination
- General health promotion, mindfulness and lifestyle advice
- Discussions and referrals for the prescribing of pharmacological treatments
- Discussion and referrals for ART regimen switches (where mental health issues are considered a side effect of an existing regimen)
- Empowerment though shared decision making and directing the individual to a range of self-management tools/programmes
- Advice on access to complementary therapies including exercise programmes
- Motivational interviewing
- Offering a range of access points such as telephone support and virtual clinics
- Facilitating access to online support and therapy groups
- Referral for specialist therapies (e.g. CBT)
- Tackling HIV-related stigma

P. Conclusion

While PLWH may inevitably experience the same types of mental health disorders as HIV-negative individuals, support and treatment should be tailored to ensure that it is appropriate for PLWH and the particular set of confounders and challenges experienced.

The States of Mind Report [50] sums up the direction in which all service providers, including HIV nurses should be aiming: to actively participate in, and reinforce, the need for comprehensive mental health support for PLWH; and encouraging PLWH to seek support while also ensuring support is available, well publicised and provided by skilled staff.

Tackling stigma and discrimination against PLWH has a significant role to play in improving the mental wellbeing of the HIV community. The rights of PLWH to good mental health should be championed by nurses. Mental health must remain high on the agenda for all those living with, and supporting those with HIV.

Q. Useful resources

- European Clinical AIDS Society guidelines. Available at: www.eacsociety.org/files/guidelines_8.2-english.pdf
- Standards for Psychological Support for Adults Living with HIV. Available at: www.bps.org.uk/standards-psychological-support-adults-living-hiv
- BHIVA British HIV Association guidelines for the routine investigation and monitoring of adult HIV-1-positive individuals 2016. Available at www.bhiva.org/documents/Guidelines/Monitoring/2016-BHIVA-Monitoring-Guidelines.pdf
- Positively UK. *States of Mind Report; Improving Mental Wellbeing in the HIV Community*. 2013. Available at: wwpositivelyuk.org/wp-content/uploads/2013/09/States-of-Mind-report-2013.pdf
- MIND (Mental health charity). Available at: www.mind.org.uk
- Mental Health First Aid England. Available at: mhfaengland.org.

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