My father, 71, was diagnosed with HIV in 2007. He has told me how difficult it has been for him emotionally. He has discussed with me his ‘impending death’. He rarely discusses his status with anyone outside the family for fear of being discriminated against. He now takes alcohol, something he had not done in a long time before his diagnosis. Sometimes he won’t take his drugs but my mother tries to keep him on track. He is stressed and he may not be alone.

11 percent of Malawi’s 14 million people are HIV positive. The Malawi government has scaled up provision of Anti-Retroviral (ARV) drugs to HIV positive persons with 450,000 receiving these life prolonging drugs. But at least 40,000 lives are lost to HIV annually. Affective science, the study of emotions, proves that many of these deaths could be avoided or lives prolonged. Stress management may be the missing crucial addition to provision of ARVs.

Like my father, many people with an incurable disease are highly stressed. In their study in 1967, psychiatrists Thomas Holmes and Richard Rahe found that having a major illness was one of the major stressors in life. While HIV is a stressor on its own, some HIV positive people face additional stressors like divorce or death of someone close. Experiencing these major stressors puts HIV positive people at a high risk of suffering from heart diseases, diabetes and high blood pressure among others. Unfortunately there are few government run interventions in Malawi that directly aim at managing stress in HIV positive people.

But how can HIV cause stress which would result in other illnesses? The answer lies in the event being uncontrollable; HIV is incurable and the person carrying the virus may have little control over their fate. Sally S. Dickerson and Margaret E. Kemeny of the University of California conducted 208 laboratory studies in which some participants were subjected to uncontrollable events which resulted in secretion of high levels of a stress hormone, cortisol. Health experts will attest that this is unhealthy as it results in development or progression of other illnesses.

Another study by Dr. Madelon Peters, Professor in experimental health psychology at Maastricht University also found that high levels of cortisol inhibit production of a body protein called cytokine that is crucial in the interaction, behavior and communication between body cells. The study found that this directly impacts the immune system which becomes ineffective in fighting off diseases. HIV being a virus that attacks the same immune system, low cytokine may have devastating results.

Stress in people who are diagnosed with HIV is also known to cause high realistic acceptability levels, which is one’s resignation to the fate of death. A self-reporting study of HIV positive gay men by Geoffrey Reeds and Margaret Kemeny found that those with low realistic acceptability had 9 months longer survival time than those that had high realistic acceptance. The study further discovered that high realistic acceptance led to non-adherence to drugs, risky sexual behaviors and drug and alcohol use. Some of these sound familiar in my father’s case.
Stress also causes early disease progression in HIV. Working from a list of 111 stressors ranked according to their severity, Dwight Evans and others found that disease progression doubled for every one of the severe stressors in 6 months.

From this scientific evidence, it is imperative that the Malawi government start dealing comprehensively with stress to reduce HIV mortality. According to Robert Sapolsky who has immensely studied and written on stress, the major strategy in reducing stress is increasing one’s control of the situation. This proved true in a study by Nancy McCain and others at Virginia Commonwealth University where among other interventions; spirituality was discovered to boost the immune system and quality of life for people living with HIV. Spiritual interventions made HIV positive participants believe that God was in control. This would be most relevant and easy to implement in Malawi as it is a religious country. The intervention is also affordable considering that Malawi is a poor country.

Another study done in Kenya by Ohio University’s Caroline Kigori and her team found that high social support was a buffer against the negative effects of HIV infection and stress. In Malawi, people living with HIV form their own support groups. The Malawi government may need to put more emphasis on this strategy and train members in stress management. The study by Kigori also recommends constant patient follow-up by health personnel.

So ARV drugs, on their own, may not be the answer to prolonging lives of people living with HIV. Provision of these drugs need to be accompanied by stress management or else the effects of stress will continue to negatively affect the very immune system that the ARVs are meant to boost.
References


