



## Depression and HIV: integrated care towards 90-90-90

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Received 14 August 2016; revised 8 December 2016; editorial decision 8 December 2016; accepted 20 December 2016

Depression is a global public health problem affecting more than 300 million people. People living with HIV (PLWH) are twice as likely to suffer from depression when compared to matched non-HIV infected persons. Untreated, depression may hasten HIV disease progression. A large treatment gap for depression, particularly in low and middle income countries exists. There is, however, emerging evidence suggesting that trained lay health workers (LHW) can deliver evidence-based treatments in the absence of mental health professionals. Evidence-based treatments delivered by LHW can contribute towards reducing the treatment gap for depression and achieving the 90-90-90 objectives.

**Keywords:** Depression, HIV, Lay health workers, Treatment gap

### Background

WHO estimates that there are 36.9 million people living with HIV (PLWH), with 70% of those affected living in low and middle income countries (LMIC). The number of PLWH on life saving highly active anti-retroviral medication (HAART) has doubled in the last 5 years, particularly in LMIC where over 12 million PLWH were reported to be on HAART in 2015. As HIV transitions into a non-fatal chronic condition due to improved access to HAART, co-morbidity with non-communicable diseases such as diabetes, cardiovascular disease, and mental, neurological and substance use disorders (MNS), has become more prevalent.<sup>1</sup> Depression, alcohol use disorders, and neurocognitive disorders are the three most common MNS disorders found in PLWH in LMIC, with depression being the most prevalent.<sup>2</sup> Depression rates of over 30%, have been reported in a number of HIV populations in LMIC.<sup>3</sup> The high prevalence of depression in PLWH has implications for a wide range of HIV prevention initiatives such as the prevention of mother-to-child transmission, but particularly for the 90-90-90 initiative which aims to have 90% of the population tested; 90% of those testing positive being on treatment, and 90% of those on treatment achieving viral suppression. It is particularly the last 90% of this initiative that has implications within the context of treatment and retention to care for PLWH because depression is associated with poor HIV outcomes.<sup>4,5</sup>

A recent meta-analysis shows that across 95 independent samples depression was significantly ( $p < 0.0001$ ) associated with non-adherence to anti-retroviral treatment.<sup>5</sup> While evidence

from a recent clinical trial in Uganda shows that treating depression improves adherence to anti-retroviral treatment and clinic attendance.<sup>6</sup> A key barrier to treating depression in LMIC is the lack of mental health professionals. Sub-Saharan Africa has the largest treatment gap for depression treatment with a ratio of psychiatrist/psychologist to the population estimated to be over 1:1.5 million.

### Reducing the treatment gap

There is growing evidence from LMIC suggesting that lay health workers (LHW) can fill this treatment gap using evidence based treatments<sup>7</sup> particularly structured psychological therapies or 'talk therapies' based on cognitive behavior therapy techniques.<sup>8</sup> Cognitive behavior therapy is an evidence based treatment that focuses on developing and strengthening personal coping strategies through solving immediate and current problems by changing unhelpful cognitions, behaviours and emotions. Although LHW have been known to play a critical role in HIV pre and post test counseling and anti-retroviral treatment adherence, and scale up of HIV/AIDS care within communities,<sup>4</sup> there now is extensive evidence indicating that the same LHW can be trained to deliver evidence based psychological therapies previously thought to be in the domain of mental health professionals.<sup>7</sup> For instance, in Zimbabwe, a low-cost intervention delivered by LHW, the Friendship Bench has been running for 10 years<sup>9</sup> and has recently been integrated into HIV care programs and scaled up to over 70 primary health care clinics.<sup>10,11</sup> Similarly, in Uganda group

psychological therapy delivered by LHWs has been effective in addressing depression and improving adherence to HAART.<sup>12</sup> And more recently, evidence from India (Patel V, Weobong B, Weiss H et al., manuscript submitted) and Zimbabwe (Chibanda D, Weiss H, Verhey R et al., manuscript submitted) has further confirmed the effectiveness of using LHW to narrow the treatment gap for depression.

Guidelines on how to integrate cognitive behavior therapy techniques such as problem solving therapy, behavior activation and activity scheduling are readily accessible through peer reviewed publications and WHO platforms such as the Mental Health Gap Action Programme. While assessment of core-competencies for delivering depression care packages are described in the Kampala neurosciences stakeholders' meeting,<sup>13</sup> which were utilized in developing and scaling-up the Friendship Bench intervention in Zimbabwe.<sup>10</sup>

A key requirement for reducing the treatment gap through LHW is ensuring the availability of user-friendly screening tools that are culturally acceptable to both LHW and clients. Validation of screening tools within the local cultural setting, taking into account both etic and emic factors, to ensure acceptable sensitivity and specificity is critical. Several screening tools using this approach have been developed and validated in LMIC.<sup>14</sup> Tools that have been successfully used in interventions delivered by LHW include the Patient Health Questionnaire, a 9-item Likert scale that takes less than 10 minutes to administer. Other similar tools recommended for use in LMIC include the Self-Reporting Questionnaire (SRQ-20), the Edinburgh Postnatal depression Scale (EPDS), and the Hospital and Anxiety Depression Scale-D (HADS-D).<sup>14</sup>

## Towards integration

Consensus to retain LHW in LMIC as a way of reducing the treatment gap towards the 90-90-90 initiative is growing,<sup>4</sup> and the link between depression and poor HIV outcomes is now firmly established.<sup>5,6</sup> However, little is mentioned in the emerging research about the high comorbidity of depression with other MNS conditions, such as anxiety, post-traumatic stress disorders, and substance use disorders. The current singular focus of existing interventions on one diagnostic category acts as a barrier to substantially reduce the treatment gap for not only depression but other MNS conditions.<sup>10</sup> Therefore, strategies to integrate depression care into routine HIV management should go a step further by integrating other MNS conditions as part of depression care within HIV.<sup>2</sup> There is evidence suggesting that LHW can be taught techniques to incorporate additional screening and management of specific MNS conditions using a common elements treatment approach.<sup>15</sup> The common elements treatment approach is based on the principle that there is extensive overlap of symptomatology in the different MNS conditions and specific elements to address comorbidity can be included in the screening and care packages for depression as it is integrated into HIV programmes. A common elements treatment approach could be an efficient, scalable and sustainable strategy for narrowing the treatment gap, and could reduce the loss of clients to referrals in lower resource settings.<sup>10</sup>

## Conclusions

There is sufficient evidence showing that depression is highly prevalent among PLWH and it impacts negatively on HIV disease outcomes. Lay health workers can be trained to screen and deliver evidence based interventions for depression treatment in PLWH thereby improving outcomes and contributing towards the 90-90-90 initiative. There is, however, need for further research to establish the most efficient means to integrate depression care into existing HIV programmes.

**Author's contributions:** DC has undertaken all the duties of authorship and is guarantor of the paper.

**Funding:** DC is funded by the Wellcome Trust and Grand Challenges Canada.

**Competing interests:** None declared.

**Ethical approval:** Not required.

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