

Reducing the treatment gap for mental, neurological and substance use disorders in Africa: lessons from the Friendship Bench in Zimbabwe

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Mental, neurological and substance use disorders (MNS) are a leading cause of disability in Africa. In response to the large treatment gap for MNS, a growing body of evidence-based treatments (EBTs) is emerging from Africa; however, there is a dearth of knowledge on how to scale up EBT. The Friendship Bench intervention is a brief psychological treatment delivered through the primary health care system in Zimbabwe by trained lay health workers. It has contributed significantly towards narrowing the treatment gap for common mental disorders in Zimbabwe where it has been scaled up to over 70 primary health care facilities. A three-pronged approach consisting of community engagement, use of EBTs and a government endorsed scale-up plan is described as part of the key strategy leading to the scale up of the Friendship Bench.

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Background

Mental neurological and substance use disorders (MNS) contribute significantly to the global burden of disease particularly in low- and middle-income countries (LMICs) (Mokdad *et al.* 2016) where rates of depression and other common mental disorders are reported to be above 20% in some primary care settings (Kohn *et al.* 2004; Chibanda *et al.* 2014a). Sub-Saharan Africa, with the largest treatment gap for MNS (Sherr *et al.* 2011; Lund *et al.* 2015), is compounded by the brain drain of health professionals, and perpetual competing needs for the meagre resources allocated for health (Shidhaye *et al.* 2015).

Competing needs are often used as justification by governments to allocate <1% of the health budgets for MNS care (Gureje & Alem, 2000). In recent years, a growing body of knowledge is justifying the need to integrate MNS care packages in existing programmes such as those for HIV/AIDS (Collins *et al.* 2013; Kaaya *et al.* 2013a; Chibanda *et al.* 2014a). However, African policymakers remain ill-informed about MNS care and its potential for positive impact on broader socio-economic and public health issues (Gureje & Alem, 2000; Ventevogel & de Jong, 2006; Petersen *et al.* 2011).

As MNS research continues to grow in sub-Saharan Africa, there is need to strengthen strategies for engaging policymakers (Ventevogel & de Jong, 2006). Equal

attention on how best to leverage existing resources to reduce the treatment gap through evidence-based treatments (EBTs) is also required (Ventevogel & de Jong, 2006; Ventevogel, 2014; Rahman, 2015, Shidhaye *et al.* 2015). Zimbabwe, a country struggling with ongoing social-economic challenges, and lacking in human resources for MNS care (12 psychiatrists and 16 psychologists for a population of 13 million), is narrowing this treatment gap by integrating a task-shifting care package – the Friendship Bench.

The Friendship Bench programme is delivered by lay health workers (LHWs) who are trained and supervised by clinical psychologists and psychiatrists in the country's primary care facilities. Running since 2006 (Chibanda *et al.* 2011), the Friendship Bench has recently been scaled up to over 70 primary health care clinics following a successful clinical trial (Chibanda *et al.* 2015a). The brief psychological intervention delivered through the Friendship Bench is based on problem-solving therapy (PST) with components of activity scheduling and behaviour activation. Key elements include *kuvhura pfungwa* (opening of the mind), *kusimudzira* (uplifting) and *kusimbisa* (strengthening) (Chibanda *et al.* 2015a).

A three-pronged approach consisting of: (i) community engagement, (ii) EBT approaches and (iii) a government endorsed scale-up strategy leading to the scale up is described.

Community engagement

Community engagement is an interactive process that brings together community members, researchers and

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other key stakeholders, as equal partners in initiatives that benefit the community. Several overlapping strategies including, formative research, community and traditional leaders' support, partnership with community stakeholders, community sensitisation and education have been identified as critical for community engagement (Musesengwa & Chimbari, 2016). It has been argued that while these strategies are essential, they often prioritise communication aimed at defending science from misinformation and seek to educate the community about science, with less emphasis on building trust and establishing resonance with the public (Dudo & Besley, 2016). This often results in communities not driving the public health agenda (South & Phillips, 2014).

In recent years, an engagement strategy that has gained considerable traction and appears to address all the above issues while fostering genuine collective team building between communities, user groups and researchers is the theory of change (ToC) approach (De Silva *et al.* 2014). The ToC approach facilitates stakeholder participation, including communities through a collective iterative process, which enables explicit identification of causal pathways, and potential for linking indicators to the design of interventions (Hailemariam *et al.* 2015; Breuer *et al.* 2016). For instance, engaging key stakeholders in participatory planning of mental health services through ToC workshops has been effective in India, South Africa, Nepal, Uganda and Ethiopia through the Programme for Improving Mental Health Care (PRIME) (Hailemariam *et al.* 2015).

A component not often addressed in ToC workshops is that of scaling up interventions, particularly in the absence of funding.

In Zimbabwe, a deliberate focus on the subject of scale-up post-funding has been included in ToC workshops related to the development of a local intervention – The Friendship Bench (Chibanda *et al.* 2011). After successfully engaging both local and international stakeholders through a series of ToC workshops (Chibanda *et al.* 2016c), a separate component specifically aimed at exploring the feasibility of scale up was undertaken with the involvement of the community (Chibanda *et al.* 2016d). Through this scale-up strategy a range of requirements were put forward with specifics on how to address each of them. These included a thorough needs assessment involving key stakeholders and community members, and identifying key priority areas. Other requirements included skills assessment to identify core competencies and current gaps of LHWs, nurses and doctors and consultations to determine funding mechanisms both locally and externally. Our final ToC narrative described key requirements for scale-up, which included early buy-in from key stakeholders particularly the community. Emphasis was

placed on the use of existing human resources, obtaining financial support locally, and developing a coherent sustainability plan endorsed by the public, government and private sector (Chibanda *et al.* 2016d). A particularly powerful component of the ToC approach that seemed to unify participants and contribute towards building consensus for scale-up was the creation of the ToC map, which provided a visual illustration of the causal pathway leading to scale-up. The ToC map further illustrated expected benefits for the community as a result of the scale-up. Community members and LHW described the ToC map as an effective visual tool for building consensus on an evidence-based intervention (Chibanda *et al.* 2016c).

EBT approach

Treatment packages for MNS adapted from the West have been effective in several clinical trials conducted in Africa (Mynors-Wallis *et al.* 1995; Cooper *et al.* 2002b; Bolton *et al.* 2003; Kaaya *et al.* 2013b; Nakimuli-Mpungu *et al.* 2013; Chibanda *et al.* 2014b); however, translation of results into routine practice and scale up has been a challenge (Olagunju *et al.* 2013; Shidhaye *et al.* 2015). Clinical trials often do not reflect the real world, particularly in relation to human resources and financial realities on the ground. For instance, interventions in clinical trial settings are often delivered by skilled cadres such as psychologists, Ph.D. candidates, nurses and doctors (Chibanda *et al.* 2015b; Verhey *et al.* 2016), and are usually well funded. Furthermore, ensuring fidelity outside of a clinical trial setting particularly where LHWs are the delivering agent can be challenging.

Translating EBT into local context should therefore take into consideration existing human resources such as LHWs (Patel *et al.* 2010). Although requiring more training and supervision, LHWs can offer sustainable options through task shifting (Ventevogel, 2014) and there is growing evidence supporting the use of this cadre (Cooper *et al.* 2002a; Chibanda *et al.* 2011; van't Hof *et al.* 2011; van Ginneken *et al.* 2013; Nakimuli-Mpungu *et al.* 2015). LHWs often understand the local context and can facilitate a balanced mix between emic and etic features (Patel & Mann, 1997) or cross-cultural methods (Kleinman, 2003). For instance screening tools should be culturally acceptable and user friendly for LHWs without compromising on sensitivity and specificity (Akena *et al.* 2012b). In this regard, several tools when translated into African languages and validated against recognised gold standards have been found to be appropriate for use in Africa, such as the SRQ-20, GHQ-12, the HADS-D and PHQ-9 (Ali *et al.* 2016). In addition, there is

emerging evidence of validated visual tools for illiterate populations (Akena *et al.* 2012a).

During the formative phase of the Friendship Bench (Chibanda *et al.* 2016b), LHWs were involved in the validation of screening tools. This exercise included translation/back-translation of tools, reviewing the gold standard, protocol training and deciding on a cut-off score based on sensitivity and specificity. We have found that LHW involvement in what is traditionally perceived to be technical work is critical for enhanced buy-in and likelihood of continued use of validated screening tools by LHWs after the study period.

Second, during the development of the psychological intervention, LHW participation contributed to the team's understanding of local concepts of CMD, including indigenous idioms of distress used to navigate through the therapy sessions (Chibanda *et al.* 2016a). For instance, locally conceived terms for PST such as *kuvhura pfungwa* (opening the mind through empathy and listening), *kusimudzira* (uplifting through acknowledging the problems and facilitating a process aimed at selecting a single problem to focus on) and *kusimbisa* (strengthening through the process of brain storming for solutions) contributed towards the development of a local mental health lexicon and cultivated community ownership of the intervention (Chibanda *et al.* 2016a). The final intervention, which was tested through a cluster randomised controlled trial (Chibanda *et al.* 2015a) showed effectiveness of all outcome measures after a 6-month follow-up (submitted). The clinical trial findings prompted the health authorities to recommend scaling up of the Friendship Bench (Chibanda *et al.* 2016d).

Government endorsed scale up

A common challenge facing MNS researchers is how to integrate or scale up interventions that are effective (Eaton *et al.* 2011; Shidhaye *et al.* 2015). Using task shifting, promoting community-based recovery, and use of training as a continuous way of strengthening clinical competencies are some suggested strategies for integrating and sustaining MNS care in primary care settings (Patel *et al.* 2010; Ventevogel, 2014).

Political buy-in has been described as an equally important component of the process (Collins *et al.* 2013; Rebello *et al.* 2014). In Zimbabwe, political buy-in for the scaling up of the Friendship bench to over 70 primary health care clinics has largely been driven by local health authorities and the community (Chibanda *et al.* 2016d). Three key-selling points aimed at achieving the above have been: (i) Emphasis on the added value of treating CMD as a comorbid condition in existing priority public health programmes such as HIV/AIDS, maternal and child health, and other

NCDs; (ii) an emphasis on using existing resources; and (iii) the novelty of providing therapy in an outdoor setting on a bench – the Friendship Bench (Chibanda *et al.* 2011), thus allowing for ease of access and scale up.

Over a 6-year period these three selling points have been highlighted, particularly during formal and informal meetings with both communities and policymakers.

Policymakers have regularly been invited as speakers or participants where these selling points have been emphasised. Furthermore, beneficiaries of the Friendship Bench intervention with co-morbid conditions such as HIV, hypertension, diabetes have been invited to speak about their experience of receiving care through the Friendship Bench and how this has helped address challenges related to their non-mental health co-morbid medical conditions. In addition, through this approach, partnerships aimed at strengthening both MNS and other priority public health conditions such as HIV/AIDS have been formed with Médecins sans Frontières (MSF) resulting in a win-win situation (Chibanda *et al.* 2016d).

While the strategies described above have shown positive results at national level, the foundation for these successes has been built through a number of earlier programmes. These include the US Government's Medical Educational partnership Initiative (MEPI) linked award for Improving Mental Health Education and Research in Zimbabwe (<http://www.nectar-uz.ac.zw/IMHERZ>), which contributed to the establishment of an academic and research development plan for the country. And recently the African Mental Health Research Initiative (AMARI) grant awarded by the Wellcome Trust as part of its DELTAS scheme which aims to Develop Excellence In Leadership Training And Science. Prior to this the Grand Challenges Canada (GCC) transition to scale grant (0763-05) had provided the platform for the scale up. These and other grants have deliberately been designed to integrate MNS care within existing health services with support from the government, particularly through salaries for LHWs and their immediate supervisors.

Challenges

Measuring fidelity of over 300 LHWs delivering the Friendship Bench intervention in over 70 primary care clinics has particularly been a major challenge. The use of mobile phone technology as described in the original Friendship Bench trial protocol (Chibanda *et al.* 2015a) has mitigated communication challenges between LHWs and their supervisors. With a 90% national mobile phone coverage the use of platforms such as SMS, WhatsApp and Slack have enabled regular fidelity checks, however, the reliability, sustainability and ethical implications of such platforms in the long term will need further research.

LHWs on the Friendship Bench are predominantly trained in screening and managing common mental disorders such as depression and anxiety disorders among adults. However, care packages focusing on children and adolescents are urgently needed because most MNS begin during this period (Patel *et al.* 2007). Furthermore, other prevalent conditions such as substance use disorders and post-traumatic stress disorders will need to be integrated in the existing care package. How these additional components will impact on the current Friendship Bench structures is not known.

In recent years, a strategy that has been explored as a means of addressing these challenges is the common elements treatment approach (CETA) (Murray *et al.* 2014; Murray & Jordans, 2016; Pacichana-Quinayaz *et al.* 2016). The CETA method relies on an internal stepped care approach (Murray *et al.* 2011), where LHWs are trained in the common elements care of several MNS, which then enables them to switch from one condition to the next based on presentation (Murray *et al.* 2014). However, such an approach may require a lot more training, support and supervision of LHWs and their immediate supervisors.

Finally, social-economic and political instabilities are often the main obstacle to implementing health programmes in Africa and Zimbabwe is no exception. Although salary support of LHWs and their supervisors throughout the country has contributed to the programme's success, a key mitigating factor to the country's social-economic and political volatility has been the strong focus on making the community the key driving force behind the Friendship Bench.

Conclusion

Reducing the treatment gap for MNS in Africa cannot be viewed in isolation of other existing health challenges. There is need for MNS researchers to articulate the added value of including MNS care packages to existing programmes such as HIV/AIDS and maternal and child health care. Utilising existing resources is particularly important while understanding community needs and stakeholder perception will enhance likelihood of scale-up success.

Sustaining the current exponential growth of the Friendship Bench is likely to depend on how well the programme continues to leverage existing resources in public health and information and technology services. For instance, the mobile phone industry as a resource could facilitate training, supervision, data collection and real time interaction between LHW and client through virtual platforms.

With an estimated one billion mobile phones on the continent, our ability to significantly reduce the

treatment gap for MNS may in the near future depend on how we leverage Africa's mobile phone platform.

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Conflict of Interest

None.

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