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Health system strengthening for mental health in low- and middle-income countries: introduction to the Emerald programme

Graham Thornicroft¹ and Maya Semrau ⁵, ²

Corresponding author
Professor Sir Graham Thornicroft, graham.thornicroft@kcl.ac.uk; David Goldberg Centre, Institute of Psychiatry, Psychology and Neuroscience, King’s College London, De Crespigny Park, London, SE5 8AF, UK

Affiliations
¹ Centre for Global Mental Health, Institute of Psychiatry, Psychology and Neuroscience, King’s College London, UK
² Global Health and Infection Department, Brighton and Sussex Medical School, Brighton, UK

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Summary

This paper gives an overview of the Emerald (Emerging mental health systems in low- and middle-income countries) programme and introduces the subsequent seven papers in this BJPsych Open thematic series. The aims of the Emerald research programme were to improve mental health outcomes in six low- and middle-income countries (LMICs), namely Ethiopia, India, Nepal, Nigeria, South Africa and Uganda, by building capacity and by generating evidence to enhance health system strengthening in these six countries. The longer term aim is to improve mental health care, and so contribute to a reduction in the large treatment gap that exists for mental disorders. This series includes papers describing the following components of the Emerald programme: (i) Capacity Building; (ii) Mental Health Financing; (iii) Integrated Care (iv) Mental Health Information Systems; and (v) Knowledge Transfer. We also include a cross-cutting paper with recommendations from the Emerald programme as a whole. The inclusion of clear mental health related targets and indicators within the United Nations Sustainable Development Goals now intensifies the need for strong evidence about both how to provide effective treatments, and how to deliver these treatments within robust health systems.
Introduction

This thematic series in BJPsych Open reports on the work and findings of the Emerald (Emerging mental health systems in low- and middle-income countries) programme (1). Emerald was funded over 5 years (2012-2017) by the European Union FP7 framework to support health system strengthening research related to mental health. In this context a health system is defined as “the sum total of all the organizations, institutions and resources whose primary purpose is to improve health” (2) within which WHO has identified 6 core system components (see Figure 1).

(Figure 1 about here)

At present, health systems fail people with mental disorders in every country worldwide. At best only a third of people with mental disorders are treated in some high income countries, and at worst fewer than 5% of people with mental disorders in low- or middle-income countries (LMICs) receive any treatment or care (3-6). This large disparity between true levels of need and actual treatment rates is referred to as the ‘treatment gap’. This gap is due, in part, to the substantial under-resourcing for mental health, which results in far too few human resources for mental health and a reliance on a small number of beds in tertiary hospitals. Stigma and discrimination may also contribute to the treatment gap because people do not access services or are exposed to human rights abuses. The gap exists even though the substantial contribution of mental disorders to the global burden of disease is increasingly recognised (7, 8), as well as their cross-cultural applicability and relevance to sustainable development ((9, 10)While there are now several high quality sources which synthesise information on effective interventions for people with mental disorders (11-13), far less developed is our understanding of what elements must be put in place, at the national, regional and community levels, to support the long-term delivery of effective mental health services (14, 15).

The aims of the Emerald programme were to improve mental health outcomes in six LMICs (Ethiopia, India, Nepal, Nigeria, South Africa and Uganda) by building capacity and by generating evidence to enhance health system strengthening, thereby improving mental health care, and so contributing to a reduction in the mental health treatment gap. The key characteristics of the six Emerald country sites are shown in Table 1. These countries all face the formidable mental health system challenges that are common across LMICs, such as weak governance, a low resource base, and poor information systems. The six countries
were invited into the programme due to the commitment of local researchers and policymakers to engage in this programme, and to provide a rich comparison of sites in relation to their geographical, economic, socio-cultural, and urban/rural contexts, in order to strengthen the generalisability of the findings.

(Table 1 about here)

The Emerald programme entailed the co-ordination of the following 5 components (called work packages):

(i) **Capacity Building**: This work by Sara Evans-Lacko, Charlotte Hanlon, Atalay Alem and colleagues is described in paper 2 of this BJPsych Open thematic series (16), which builds upon previous reports (17-24). The Emerald programme has successfully supported the doctoral (PhD) studies of 10 students across the 6 LMICs (3 from Ethiopia, 2 from India, 1 from Nepal, 1 from Nigeria, 2 from South Africa, 1 from UK). In addition, three Masters-level teaching modules with 28 sub-modules (see Table 2) have been developed that can be integrated into ongoing Masters courses, as well as three short courses for: i) researchers; ii) policy-makers and planners; and iii) service users and caregivers, to build capacity in mental health systems research within Emerald countries and beyond. These training materials are available for open access to relevant staff in countries worldwide using a Creative Commons licence.

(ii) **Mental Health Financing**: Paper 3 in this BJPsych Open thematic series considers strategies for sustainable mental health system financing in LMICs (25), led by Dan Chisholm, Crick Lund and Sumaiyah Docrat (26-28).

(iii) **Integrated Care**: Within Emerald, we have deliberately approached the scaling up of services to identify and treat many more people with mental disorders in LMICs by integrating these activities into mainstream primary and community healthcare services. Paper 4 in this series (29) is co-ordinated by Inge Petersen and Fred Kigozi, and discusses the key barriers and facilitators related to such integrated care (14, 30-34).

(iv) **Mental Health Information Systems**: Knowledge of how health systems perform, in order to manage and improve them, is crucial yet such data are most often missing, scarce or of poor quality in LMICs. Paper 5 in this series led by Mark Jordans and Oye Gureje describes the practical utility of new mental health system indicators
developed by the Emerald team (35), and paper 6 led by Shalini Ahuja (36) sets out our findings of how such indicators can best be implemented (37, 38).

(v) Knowledge Transfer: While the evidence generated by programmes such as Emerald can make original contributions to the scientific literature, more important is whether such information is actionable, namely can be communicated to those who are in a position to practically apply this information to improve treatment and care. José Luis Ayuso-Mateos sets out in paper 7 what has been learned within Emerald on how to successfully achieve such forms of knowledge transfer (39).

(Table 2 about here)

In our conclusion, paper 8 presents a series of recommendations by the Emerald team for the strengthening of mental health systems in LMICs, taking a cross-cutting approach over the 5 different work packages that were implemented during the programme (40).

The field of global mental health is now undergoing a remarkable transformation with a long overdue appreciation of the scale of the contribution of mental disorders to the global burden of disease (8, 41), and the potential for greater community cohesion and workplace productivity if people with these conditions are properly treated and supported. The inclusion of clear mental health related targets and indicators within the United Nations Sustainable Development Goals (42-44) now intensifies the need for strong evidence about both how to provide effective treatments, and how to deliver these treatments within robust health systems.
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The Emerald programme is led by Prof Graham Thornicroft at KCL. The project coordination group consists of Prof Atalay Alem (AAU), Prof José Luis Ayuso-Mateos (UAM), Dr Dan Chisholm (WHO), Dr Stefanie Fülöp (ARTTIC), Prof Oye Gureje (UI), Dr Charlotte Hanlon (AAU), Dr Mark Jordans (HealthNet TPO; TPO Nepal; KCL), Dr Fred Kigozi (BNH), Prof Crick Lund (UCT), Prof Inge Petersen (UKZN), Dr Rahul Shidhaye (PHFI), and Prof Graham Thornicroft (KCL).

Parts of the programme are also coordinated by Ms Shalini Ahuja (PHFI), Dr Jibril Omuya Abdulmalik (UI), Ms Kelly Davies (KCL), Ms Sumaiyah Docrat (UCT), Dr Catherine Egbe (UKZN), Dr Sara Evans-Lacko (KCL), Dr Margaret Heslin (KCL), Dr Dorothy Kizza (BNH), Ms Lola Kola (UI), Dr Heidi Lempp (KCL), Dr Pilar López (UAM), Ms Debra Marais (UKZN), Ms Blanca Mellor (UAM), Mr Durgadas Menon (PHFI), Dr James Mugisha (BNH), Ms Sharmishtha Nanda (PHFI), Dr Anita Patel (KCL), Ms Shoba Raja (BasicNeeds, India; KCL), Dr Maya Semrau (KCL), Mr Joshua Ssebunya (BNH), Mr Yomi Taiwo (UI), and Mr Nawaraj Upadhaya (TPO Nepal).

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**Author contributions**
Both authors contributed to the writing of the manuscript.

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