Beyond input-output: Applying dynamic systems theory to the complexity of implementing mental health interventions in non-western cultures

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BACKGROUND

Global dissemination of western mental health interventions across widely diverse cultures in low-middle income countries (LMICs) leaves a potentially large implementation gap for non-Caucasian people[1].

We developed this model to take into account how individual, family, organisational and cultural values and resources influence firstly the presentation of mental ill-health, and secondly what existing mechanisms are available to treat it.

METHOD

We expanded the 'patient' components of the Pragmatic Robust Implementation and Sustainability Model (PRISM)[2] and reframed it under 'circle of values'

With regards to intervention, we used a dynamic systems approach[3] to model how individuals, families, and cultures vary in terms of their coping mechanisms.
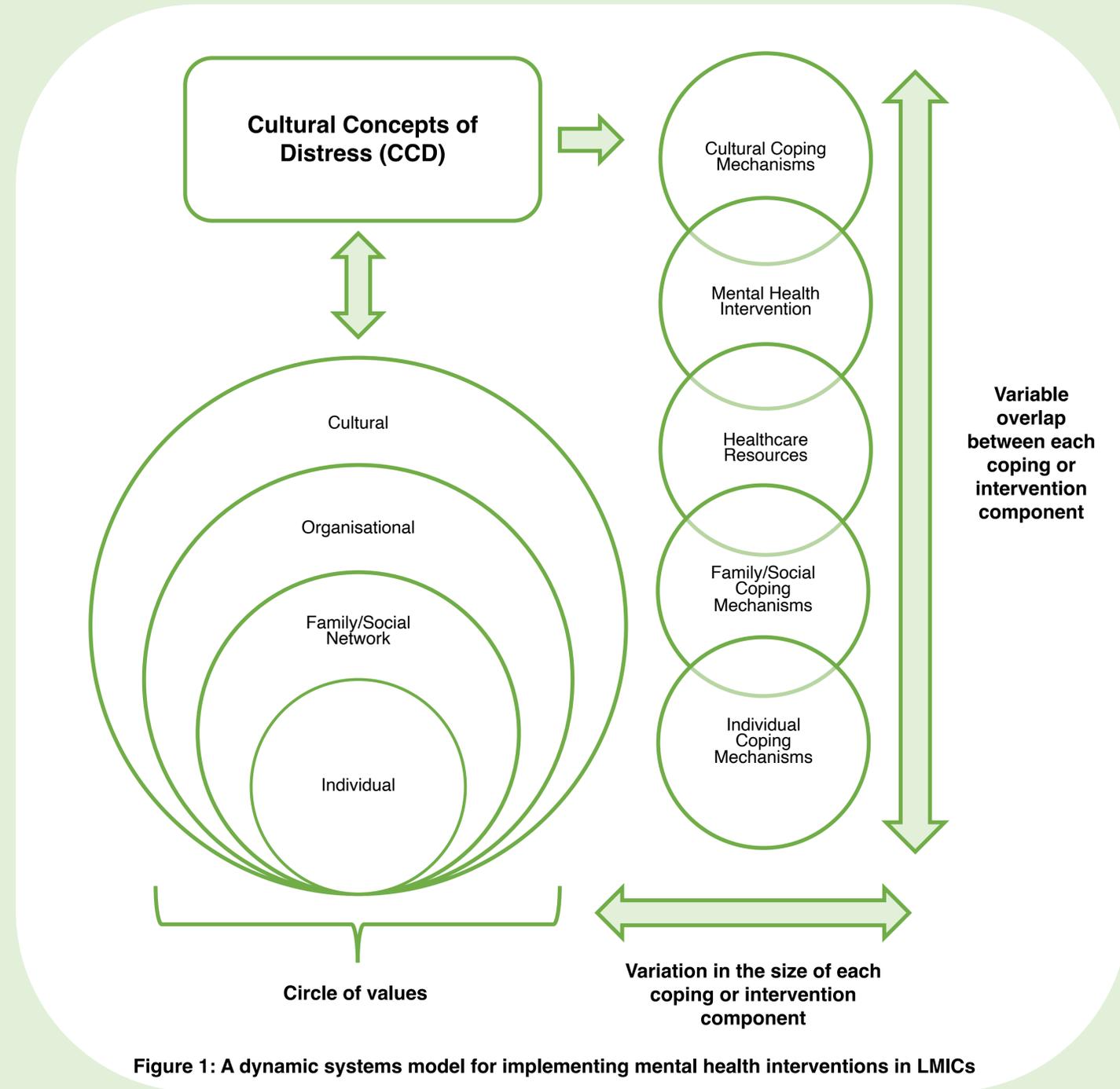
RESULTS

Figure 1 shows the resulting model. Combining an expanded PRISM with a dynamic systems approach means that we can model the dynamic nature of the overlap between an individual's coping mechanisms, their family's, alongside organizational capacity to implement interventions and existing cultural and evidence-based practices to support mental health.

CONCLUSION

Integrating components of PRISM within a dynamic system model of cultural adaptation allows us to represent the uncertainty and unpredictability of adapting mental health interventions more accurately in non-western cultures.

Importantly, it also models the tension between self, others and organizational values, which may be particularly critical in collectivist cultures, or across generations in countries experiencing rapid development.

Our model suggests how we might navigate these uncertainties and complexities through a lens of 'best fit' rather than input-output.

Cultural Concepts of Distress (CCD)

Cultural Coping Mechanisms

Mental Health Intervention

Healthcare Resources

Family/Social Coping Mechanisms

Individual Coping Mechanisms

Cultural

Organisational

Family/Social Network

Individual

Variable overlap between each coping or intervention component

Circle of values

Variation in the size of each coping or intervention component

Figure 1: A dynamic systems model for implementing mental health interventions in LMICs

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3. Braithwaite J, Churruca K, Long JC, Ellis LA, Herkes J. When complexity science meets implementation science: a theoretical and empirical analysis of systems change BMC medicine. 2018 Dec;16(1):1-4.

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