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# Cross-Cultural Insights from Two Global Mental Health Studies: Self-Enhancement and Ingroup Biases

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## Abstract

This commentary highlights two cross-cultural issues identified from our global mental health (GMH) research, RECOLLECT (Recovery Colleges Characterisation and Testing) 2: self-enhancement and ingroup biases. Self-enhancement is a tendency to maintain and express unrealistically positive self-views. Ingroup biases are differences in one's evaluation of others belonging to the same social group. These biases are discussed in the context of GMH research using self-report measures across cultures. GMH, a field evolving since its Lancet series introduction in 2007, aims to advance mental health equity and human rights. Despite a 16.5-fold increase in annual GMH studies from 2007 to 2016, cross-cultural understanding remains underdeveloped. We discuss the impact of individualism versus collectivism on self-enhancement and ingroup biases. GMH research using concepts, outcomes, and methods aligned with individualism may give advantages to people and services oriented to individualism. GMH research needs to address these biases arising from cross-cultural differences to achieve its aim.

**Keywords** Self-enhancement · Ingroup bias · Cross-culture · Global mental health · Individualism · Collectivism

## Purpose

The purpose of this cross-cultural commentary is to discuss two issues identified from our 28 country studies of Recovery Colleges (RCs), RECOLLECT (Recovery Colleges Characterisation and Testing) 2 (Hayes et al., 2023; Kotera et al., 2024b): self-enhancement and ingroup biases. RCs are mental health support communities that offer mental health education and skill development to people with mental health symptoms, carers, and staff. RCs are operated by various types of services and organisations such as primary and secondary care services, non-governmental organisations and education providers. In our studies, RC managers in 28 countries evaluated their own RCs whether their RC operation met key operational components. We found associations between cultural characteristics and the fidelity of RC operation (Hayes et al., 2023; Kotera et al., 2024b). These associations suggested that there might have been cultural advantages for the fidelity of some RCs and highlighted cross-cultural challenges in global mental health (GMH) research. Our

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Claire Henderson and Mike Slade are co-last authors.

cross-cultural perspectives below can help improve GMH research such as service evaluation across different cultures.

## Increasing Importance of GMH

The term ‘GMH’ has attracted worldwide attention since 2007 when the Lancet published a series using this term, recognising GMH as one distinctive field in health (Prince et al., 2007). Though the standardised definition is yet to be established (Vian et al., 2021), in general, GMH places mental health equity and human rights at its core and targets promotion of mental health, wellbeing, and treatment for people around the world using transdisciplinary approaches (Bass et al., 2023). Four conceptual domains of GMH are research, LMICs, implementation, and landscape (Vian et al., 2021). Cross-cultural understanding relates to all of the four domains (Vian et al., 2021). Following the Lancet 2007 series, many world-leading research organisations and funding programmes in western high-income countries have focused on GMH. Research organisations such as King’s College London and Harvard University have developed their own training programmes and textbooks about GMH. Funding programmes for GMH have been established including the Grand Challenges in Canada (CAD \$42 million investment 2014–2017) and in the USA (USD \$2 million in 2013) and the Medical Research Council call in the UK (GBP £15 million 2018–2023) (Misra et al., 2019). Misra et al.’s (2019) systematic review reported the number of GMH articles published has substantially increased from 12 in 2007 to 114 in 2016: an almost 10-fold increase in this 10-year span. When filtering for empirical studies, the number of published articles increased 16.5-fold in the same period (2 in 2007 to 33 in 2016) (Misra et al., 2019). Misra et al.’s review also noted the unstandardised definition of GMH; however, these rapid increases illustrate the strong recognition of GMH. The importance of GMH research is expected to increase considering the contemporary issues and events around the world such as the COVID-19 pandemic, the United Nations Sustainable Development Goals, human rights promotion, and climate emergency (Moitra et al., 2023). Despite the emphases, cross-cultural understanding in GMH research remains under-developed. ‘Culture’ was not regarded as a distinctive demographic item in Misra et al.’s review; nonetheless, cross-cultural differences in mental health have been widely reported (Misra et al., 2021; Naveed et al., 2020). The majority of GMH studies, 79.61%, did not report the ‘ethnicity’ of the samples, and an even higher percentage, 89.32%, did not report ‘religion’.

## RECOLLECT 2

In RECOLLECT 2, we identified associations between cultural characteristics and the fidelity of RC operation, after controlling for GDP percentage spent on healthcare and Gini coefficient (Kotera et al., 2024a). One hundred and seventy-four RCs across 28 countries participated. The results revealed that countries characterised as individualistic, indulgent, and uncertainty accepting (e.g. the UK, Ireland, Norway) scored higher on self-reported fidelity assessments than the other countries (e.g. Japan, and other countries that were blinded due to high identifiability: one or two RCs participated) (Hayes et al., 2023). Individualistic culture refers to a culture that places a value on individual needs rather than group needs as is the case in collectivistic culture. Indulgent culture means relatively high acceptance of free gratification of natural human desires to enjoy life, as opposed to self-restraint culture that values impulse control. Uncertainty accepting culture means that people in the society are

more accepting of uncertainty as opposed to feeling threatened by uncertainty, which is present in uncertainty avoidant culture (Hofstede et al., 2010). These terms were used in relatively: countries such as the UK, Ireland, and Norway are relatively individualistic, indulgent, and uncertainty-accepting among the 28 countries in our research. RC fidelity was assessed using a manager-rated self-report measure, the RECOLLECT Fidelity Measure (Toney et al., 2018). It is a standardised measure based on 12 key components of RC operation, developed from literature review (13 publications); RC manager interviews ( $n=10$ ); reviews by four expert groups ( $n=77$  in total); and another round of interviews with RC students, trainers, and managers ( $n=44$ ). Using this measure, a high-fidelity score means that the RC operates in alignment with the 12 key RC components. Key components are what were regarded as important to RC operation by the people and literature above, which strongly represented England and other western countries (McGregor et al., 2015; Toney et al., 2018).

## Self-Enhancement

Self-report measures can be susceptible to response biases (Kotera et al., 2020). When a self-report measure is used globally, researchers need to be aware of cross-cultural response biases (e.g. social desirability, extreme response). One notable type of such biases is self-enhancement. Self-enhancement is a tendency to maintain and express unrealistically positive self-views (Dufner et al., 2019). We highlight self-enhancement bias in this commentary, because this bias is particularly relevant to the individualism-collectivism dimension (Dufner et al., 2019). Despite the recent findings in commonalities of emotional expressions across cultures (Cai et al., 2016; Cowen et al., 2021), when responding to a self-report measure, people oriented to individualistic culture tend to demonstrate stronger self-enhancement than those to collectivistic culture (Heine & Hamamura, 2007). For example, European-American students (individualism) rated their self-esteem significantly higher than Chinese students (collectivism). These students also undertook an EEG test, where European-American students demonstrated significantly faster response to positive words to describe themselves than negative words, whereas Chinese did not (Hampton & Varnum, 2018). A Malaysia-UK study identified that UK students (individualism) demonstrated significantly more positive view to themselves than Malaysian students (collectivism) in all 12 various mental health outcomes (Kotera et al., 2021). A meta-analysis of cross-cultural studies on self-enhancement (91 comparisons) revealed that people oriented to individualistic culture showed a notable self-enhancement bias ( $d=0.87$ ), whereas people oriented to collectivistic culture did not ( $d = -0.01$ ) (Heine & Hamamura, 2007). However, currently no established, feasible solution exists to counter this bias in GMH.

## Ingroup Biases

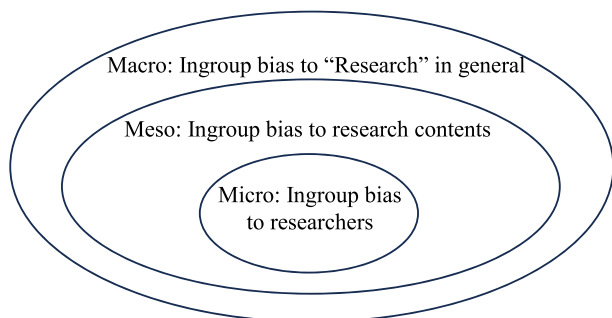
Ingroup biases can be categorised into two types. Ingroup favouritism is our inclination to regard people in our social group (ingroup) more positively than those in other groups (outgroups). Ingroup derogation is our inclination to regard ingroup more negatively than outgroups. Ingroup favouritism is more emphasised in individualistic culture, whereas ingroup derogation is more emphasised in collectivistic culture (Ma-Kellams et al., 2011). Currently, the research field is dominated by the Western, educated, industrialised, rich, and democratic (WEIRD) countries, which account for only 12% of the global population (Henrich et al., 2010). WEIRD countries share a cultural characteristic of individualism relative to non-WEIRD countries. Many mental

health interventions including RC are developed and evaluated in WEIRD countries. In our study, three levels of ingroup biases might have existed: micro-, meso-, and macro-levels. On the micro-level, participants might have experienced ingroup biases to the researchers, many of whom were from WEIRD countries (e.g. ‘they are similar/different to us’). On the meso-level, participants might have experienced ingroup biases to the research contents. For example, RCs originated in WEIRD countries. Words to explain RCs such as ‘coproduction’, ‘individual learning’, or ‘self-management’ may sound more familiar to people in WEIRD countries (Kotera et al., 2024a). On the macro-level, participants might have experienced ingroup biases to “research” in general. WEIRD countries dominate research; therefore, people in WEIRD countries might have felt taking part in research as an ingroup activity, whereas people in non-WEIRD countries might have felt it as a more foreign activity (outgroup). Figure 1 illustrates the three levels of ingroup biases that participants might have experienced in our research.

## Implications for Future GMH Research

The distinction such as ‘individualism versus collectivism’ is one arbitrary general categorisation based on a cultural characteristic. There are several other established cultural characteristics (e.g. tight vs. loose (Gelfand et al., 2006)), and finer categorisations (e.g. different cultural groups within one country; different types of individualism, i.e. horizontal versus vertical (Singelis et al., 1995)). Moreover, within the same category, the degrees can differ (e.g. Japanese culture is labelled as collectivistic in the West, but it is considered to be rather individualistic in Asia). These suggest that there is substantial work to be done to address biases arising from relative cross-cultural differences in GMH research. To address these cross-cultural biases, several strategies have been implemented. Cultural adaptation of measurement tools is one of them, aiming to establish functional equivalence with the original version (Kotera et al., 2023). Cultural adaptation has been active in domains such as autism screening tools (Soto et al., 2014). There are established guidelines for achieving linguistic and cultural equivalence considering the process of adaptation (Beaton et al., 2000; Charles et al., 2022). For example, words used may need to be simplified, examples given may need fit the local culture, or additional descriptions such as ‘this is about your opinion’ may be needed to ensure that the participants think about their own opinion (Charles et al., 2022). Another strategy is cross-validation. Cross-validation allows for estimating how a model would perform on other samples (i.e. different cultural groups). Cross-validation provides a more precise assessment of the model’s ability to predict accurately on unseen data compared to traditional model fit measures (de Rooij & Weeda, 2020). A cross-validation study among the Netherlands, Italy, and China about maternal mental health during

**Fig. 1** Three levels of ingroup biases in participants



the COVID-19 found common factors associated with maternal mental health in the three countries, as well as the unique best models in each country (Guo et al., 2021). Additionally, metrics of response biases informed by cultural characteristics can be used in quantitative analyses (e.g. cross-cultural differences of social desirability bias) (Teh et al., 2023). If an aim of a GMH study is to compare self-reported scores, researchers can use the cross-cultural response bias metrics to remove the cultural impact. Artificial intelligence (AI) may help address biases derived from cross-cultural differences, as it can discern relatively internal cues such as facial expressions, contrasting with more external indicators such as behaviours. Notably, a neuroscience study found that self-enhancement differences occur externally rather than internally (Cai et al., 2016). People oriented to individualism chose more positive words as self-descriptive (i.e. they believed positive words describe themselves) than people oriented to collectivism did (external), while the reaction time to those words was similar between the two groups (internal). An AI study used a computational approach called ‘deep neural networks’ (DNNs) to analyse 6 million YouTube videos from 144 countries. They found that facial expressions of 16 emotions at ‘common social contexts’ were similar across cultures (e.g. awe at fireworks, contentment at weddings, doubt at protests) (Cowen et al., 2021). Taking part in research was not considered a common social context; therefore, it was not evaluated in this study. Application of AI approaches such as DNNs into research contexts may help address these biases.

## Conclusion

GMH research has developed rapidly, yet its cross-cultural understanding remains under-developed. Unaddressed cross-cultural biases can lead to results that give advantages to a certain cultural group, compromising the accuracy of GMH research findings. Our GMH studies highlighted self-enhancement and ingroup biases in self-reporting between collectivism and individualism. Self-enhancement bias might have been present in participants from individualistic culture relative to those from collectivistic culture. The three levels of ingroup biases might have existed and impacted differently between individualism and collectivism. Strategies such as cultural adaptation of measurement tools and cross-validation were discussed. Moreover, cultural metrics and AI were suggested to reduce the biases. Cross-cultural understanding can help GMH research achieve its foundational aim to protect mental health equity and human rights.

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**Data Availability** Not applicable.

**Code Availability** Not applicable.

## Declarations

**Ethics Approval** Not required for this work.

**Consent to Participate** Not applicable.

**Consent for Publication** Not applicable.

**Competing Interests** The authors declare no competing interests.

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