Social determinants of mental disorders and the Sustainable Development Goals: a systematic review of reviews

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INTRODUCTION

Mental health has been included in the UN Sustainable Development Goals. However, uncertainty exists about the extent to which the major social determinants of mental disorders are addressed by these goals. The aim of this study was to develop a conceptual framework for the social determinants of mental disorders that is aligned with the Sustainable Development Goals, to use this framework to systematically review evidence regarding these social determinants, and to identify potential mechanisms and targets for interventions.

We did a systematic review of reviews using a conceptual framework comprising demographic, economic, neighbourhood, environmental events, and social and culture domains. We included 289 articles in the final review. This study sheds new light on how the Sustainable Development Goals are relevant for addressing the social determinants of mental disorders, and how these goals could be optimised to prevent mental disorders.

METHOD

We searched three databases (PubMed, PsycINFO, and Scopus) for studies. Individual search strategies were developed for each domain, and searches were run in November 2016 for each database.

To manage the scope of this review, we focused on relationships with mental disorders, for which there is a more robust evidence base than for positive aspects of mental health and wellbeing.

After removing any duplicates, we identified 13 706 abstracts for initial review.

One author reviewed titles and abstracts for these articles using bibliographic software. Subsequently, 699 full articles for the final list of included abstracts were accessed and reviewed by two to three authors for each domain.

Articles not meeting the inclusion criteria at this stage were excluded.

Data Analysis

Data extracted were the risk and protective factors (separated into proximal and distal factors), the hypothesised pathways for mediation of this risk or protection (as proposed by authors of the included studies), and the mental disorder outcomes, by age and gender. The strength-of-evidence scores were assigned to each factor on a scale of 0 to 10 according to each author's judgment, based on their review of the evidence in their assigned domain.

We took care not to assign all studies with similar

designs equal levels of evidence, and critically examined their designs and methods, to draw our own conclusions regarding the strength of the evidence in each case.

Systematic reviews with meta-analyses were judged as providing stronger evidence than narrative, critical, and integrative reviews.

Additionally, we rated the quality of each included study using the AMSTAR tool. Data extraction tables were shared between authors, and key concepts were agreed for each domain.

Once the data extraction tables were completed, authors worked in pairs to draft summaries that synthesised the main findings for each domain.

RESULTS

In total, 289 full-text articles were included in the final review: 135 for the demographic domain, 63 for the economic domain, 31 for the neighbourhood domain, 26 for the environmental events domain, and 34 for the social and cultural domain.

The findings indicate synergy between the SDGs and many of the key social determinants of mental disorders, and many of the determinants documented in this review are also targeted by the SDGs.

The findings of this review summarise a broad body of evidence that outlines the social determinants of mental disorders, and their relevance for the SDGs.

Several key factors, hypothesised pathways, specific mental disorder outcomes, and potential interventions can be identified and linked to the SDGs (Table 1).

Importantly, social determinants do not act uniformly for all mental disorders in all circumstances, and there is considerable heterogeneity according to gender, developmental stage, local context, and specific mental disorder outcomes.

Nevertheless, the data extraction table for this study integrates findings from 289 reviews reporting on social determinants of mental disorders, with ratings for strength of evidence and study quality.

We envisage this review as a potential resource for researchers, policy makers, and organisations working in the field of mental health and sustainable development.

Table 1. Social determinants of mental disorders: Domains, relevant SDGs, key factors, hypothesised pathways, mental disorder outcomes and potential interventions

Domain	Relevant SDGs*	Key factors	Hypothesised pathways (risk and protective factors)	Mental disorder outcomes	Potential interventions**
Demographic domain	SDG5: Gender equality	Gender, age, ethnicity	Differential exposure to adversity, social norms, discrimination, early life onset, gene-environment interactions in vulnerable developmental windows (pregnancy, early childhood and adolescence)	Depression, anxiety, substance abuse, psychosis, child/adolescent behavioural and developmental disorders, dementia	Reduction of gender based violence (H), reduction of child maltreatment (H), reduction of racial discrimination and xenophobia (H)
Economic domain	SDG1: No poverty, SDG2: Zero hunger, SDG8: Decent work and economic growth, SDG9: Industry, innovation and infrastructure, SDG10: Reduced inequalities	Income security, debt, assets, food security, employment, housing, income inequality, macroeconomic recessions, subjective financial strain	Social causation: insecurity, stress, helplessness, external locus of control, low social status, worse physical health status, social comparison, under-nutrition, antisocial coping behaviours, entrapment linked to suicide; Social drift: increased healthcare expenditure, disability, stigma	Depression, anxiety, substance abuse, psychosis, suicide, dementia, childhood internalising and externalising disorders	Cash transfers or basic income grants (H), reductions in income inequality (M), improved employment (H)
Neighbourhood domain	SDG6: Clean water and sanitation, SDG7: Affordable and clean energy, SDG11: Sustainable cities and communities, SDG12: Responsible consumption and production	Structural characteristics of neighbourhoods including infrastructure, safety, aggregate socioeconomic deprivation, built environment, leisure opportunities, urbanicity, crime, community violence, social cohesion	Urban migration, dopamine dysregulation, insecurity, exposure to violence, disempowerment	Depression, anxiety, substance abuse, psychosis, child/adolescent substance abuse, externalizing behaviours, bullying perpetration	Improved housing (M), safe neighbourhoods (H)
Environmental events domain	SDG13: Climate action SDG16: Peace, justice and strong institutions	Natural hazards, industrial disasters, armed conflict, displacement, disasters triggered by ecosystem hazards due to climate change or increased population	Trauma (episodic and continuous), severe stress, adversity, insecurity, loss of social support systems	PTSD, depression, anxiety, suicide, childhood internalising and externalising disorders	Reductions in violence (H), early response to environmental events (H), action on protecting vulnerable ecosystems such as climate change (H)

Domain	Relevant SDGs*	Key factors	Hypothesised pathways (risk and protective factors)	Mental disorder outcomes	Potential interventions**
Social	SDG4: Quality education	Education, social cohesion, social capital, social class	Cognitive reserve, self-efficacy, social skills, social support, trust, parenting, bullying, discrimination	Depression, anxiety, dementia, psychosis, child/adolescent internalising disorders	Improved education (H), strengthened social capital (M), and improving social support and networks for older adults (H)

*Note: SDG3 is not listed in this table as the focus of this review is on the SDGs that address the upstream social determinants of mental disorders.
** Note: The strength of the impact for potential interventions is rated as low (L), moderate (M) or high (H).

RECOMMENDATIONS

The SDGs have the potential to substantially reduce the global burden of mental disorders, by addressing their upstream social determinants.

Several universal, selective, and indicated prevention interventions are recommended to address the social determinants of mental disorders for each domain as set out in Table 1. We believe that identifying these candidate interventions on social determinants is an important first step in setting a policy agenda to prevent mental disorders at a population level, in alignment with the SDGs.

More research is needed on the mechanisms by which social determinants influence population mental health across the life course. It is crucial to create robust indicators to track both the social determinants of mental disorders and the mental health status of populations and subpopulations (eg, men and women, old and young, susceptible groups) in a manner that is relevant for the existing SDG indicators.

The current global indicators are insufficient to track crucial pathways, interventions, and outcomes for the prevention of mental disorders.

The key risk and protective factors and their pathways identified in the table represent an important starting point for expanding the SDG indicator set.

REFERENCES

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About PRIME
PRIME is a Research Programme Consortium (RPC) led by the Centre for Public Mental Health at the University of Cape Town (South Africa), and funded by the UK government's Department for International Development (UKAID). The programme aims to develop world-class research evidence on the implementation, and scaling-up of treatment programmes for priority mental disorders in primary and maternal health care contexts, in low resource settings.

Partners and collaborators include the World Health Organization (WHO), the Centre for Global Mental Health (incorporating London School of Hygiene & Tropical Medicine and King's Health Partners, UK), Ministries of Health and research institutions in Ethiopia (Addis Ababa University), India (Public Health Foundation of India), Nepal (TPO Nepal), South Africa (University of Kwazulu-Natal & Human Sciences Research Council) and Uganda (Makerere University & Butabika Hospital); and international NGOs such as Healthnet TPO and Sangath.