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 cultural 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...
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.

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

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

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