REVIEW ARTICLE

Outside/inside: social determinants of mental health

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Individuals' mental health and wellbeing are dependent on many social factors including housing, employment, education and adequate nutrition among others. These factors can influence at personal, family and community levels. The interlinked and cumulative impact of these social determinants needs to be ascertained to aid appropriate patient management, as well as to establish prevention and health education programmes. Some of these determinants also have to be recognised at policy level. It is crucial for clinicians to understand the role social determinants play in the genesis and perpetuation of mental and physical illnesses, so that appropriate social interventions can be set in place. Clinicians have a role to play in their clinical practice, as well as advocates for their patients and policy leaders. In order to ensure that health is joined up with other sectors, such as education, employment, judiciary and housing, policy-makers must avoid silos. Every policy must have an impact assessment on physical health and mental health. Policy-makers need to understand scientific evidence and must work with researchers, clinicians, communities and patients to help develop and implement rights-based policies.

Introduction

Social environments within which human beings are born, live, work and play make a tremendous amount of difference in the genesis and perpetuation of mental ill health and their wellbeing. These social and cultural factors do not only play a causative role but are also intertwined with the way individuals experience illnesses, how they respond and where they seek help from.

Across an individual's lifespan from childhood to old age, a number of identifiable social factors play an influential role in causation of various mental illnesses by furthering biological and psychological vulnerabilities. Early childhood adverse experiences, education, employment, poverty, inadequate or poor housing, built environment and food insecurity can contribute to poor physical and mental health and recovery. In addition, negative life experiences and chronic negative stressors such as discrimination can add to the development and sustenance of poor health. Social determinants can push people out of the main community groups of society and when they look inward, they may feel hurt and inferior contributing to low self-esteem and sense of entrapment which may well lead to depression to name one psychiatric disorder.

In this paper, we highlight some of the research evidence on the role these factors play and argue for

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appropriate policy development. We note this is particularly important given the challenges and limitations that have been exposed during COVID-19 and the need to build back better.

Social determinants of health

Social determinants of health are the complex set of circumstances that individuals are born into and live in including intangible factors such as political, socio-economic and cultural constructs, along with various place-based and person-based conditions (NEJM Catalyst, 2017). These circumstances inevitably are shaped by the distribution of money, power, and resources at global, national and local levels (WHO, 2008). These conditions can lead to a stratification or creating a 'caste' system which in turn leads to health inequities among different populations. Often these result from differences related to gender, wealth, ethnicity and sexual orientation. In some settings, belonging to a particular religious affiliation or group can also lead to health inequality. Various examples of social determinants are illustrated in Box 1.

Medical care often focuses on cure after disease and illness have set in, whereas perhaps more emphasis needs to be paid to preventive and public health measures including mental health. Marmot has illustrated differences in longevity based on socio-economic status (Marmot, 2015). Social and environmental influences are said to contribute 45%–60% of variations in health status (Donkin *et al.* 2018). Another issue that is

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Box 1. Examples of social determinants of health

Age
Gender
Ethnicity
Migrant status
Religious affiliations
Early childhood adverse experiences
Education
Insecure employment
Unemployment
Poverty
Lack of/inadequate/poor housing
Lack of access to transport
Lack of access to green spaces
Access to clean water/clean air
Recreational activities limited
Food insecurity
Trauma
Violence

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highlighted by Shim and colleagues who point out that social determinants can often be dealt with at population level, whereas medicine focusses on individuals (Shim *et al.* 2015). These authors note that mental illnesses are highly prevalent, affecting nearly half the population in the USA (Kessler *et al.* 2005). Associated epidemics of drug dependence, gun violence, pollution and road traffic accidents further contribute to changing circumstances and poor mental health.

Social determinants of mental health

Social determinants of mental health are not dissimilar from those of physical health. Mental illnesses are complex entities with multiple causative factors. They can be comorbid with other mental or physical conditions, some through the same pathway, for example, myxoedema as a result of local iodine deficiency leading to psychiatric symptoms. In addition, physical illnesses can affect mental wellbeing and produce mental illnesses, for example, diabetes and depression. When multimorbidity is present, both conditions need to be treated properly and thoroughly. Genetic vulnerability must not be overlooked as they be exacerbated by environmental and social changes via epigenetic shift. Shim and colleagues add a note of caution emphasising that within the network of causative factors, personal choices should not be forgotten (Shim *et al.* 2015). These choices include behaviour such as smoking and dietary choices. They also highlight that the notions of social determinants are not recent and have been noted for a considerable period.

Some of the important social determinants of mental health are described below.

Adverse childhood experiences (ACEs)

Adverse childhood experiences (ACEs) are defined as highly stressful, traumatic and acute or ongoing traumatic events which affect the individual. They are both at familial/social/community and personal levels. These experiences include maltreatment, abuse (including emotional, physical or sexual), child labour, bereavement and adult responsibility such as being a young carer for an adult. Domestic social circumstances such as violence, alcohol, substance misuse, poverty, unemployment and chronic long-term conditions can all contribute to these adverse experiences. Importantly, experiences with caretakers be they at home, school or communities may be inconsistent, stressful, threatening, traumatic or neglectful, and adverse early-life experiences can occur in utero, infancy, childhood or as young adults (Koplan & Chard, 2015).

About 16% of adults report having experienced 2–3 ACEs and almost 10% experience 4 or more (Kelly-Irving *et al.* 2013). These ACEs can have substantial impact on individuals across their lifespan affecting both physical health and mental health (Bellis *et al.* 2014). Centers for Disease Control and Prevention (CDC) pyramid indicates that ACEs lead to social, emotional and cognitive impairment which contribute to maladaptive health behaviours leading on to physical and mental ill health with pre-mature death as a result (CDC, 2013). A meta-analysis reported that childhood physical and emotional abuse and neglect are all significantly associated with a range of poor mental health outcomes (Norman *et al.* 2012). Traumatic experiences act as chronic stressors and can increase levels of depression, alcohol use and other substance use (Anda *et al.* 2002).

There is evidence that a cumulative effect of adverse events may be seen and cause worse outcomes (Geoffroy *et al.* 2014; Bellis *et al.* 2014). Those experiencing six or more ACEs have a shorter lifespan (Brown *et al.* 2009). As the body brain stress response develop due to adverse experiences, epigenomes can lead to structural and functional changes (such as hypothalamic-pituitary-adrenal (HPA) axis dysregulation). Koplan and Chard point out that some of these changes are reversible and positive relationships can reduce chronic toxic stress caused by adverse experiences and thereby lower the risk of long-term poor mental health and mental disorders (p63) (Koplan & Chard, 2015).

Education

Education at all levels in one's life is crucial. Education, which can start at home, to pre-nursery, school,

university and continuing education, equip an individual with skills to cope, manage life stresses and in turn the capacity to nurture others. Learning in social and school settings can help an individual to belong, and consequent social interactions can help them grow (Powers, 2015). In addition, the individual can learn certain psychological, social, communication skills, forming relationships, regulating emotions and learning about social cores, norms and values. It also improves chances to gaining employment and also better job prospects. Indeed, poor educational attainment in general may lead to insecure employment, daily wages, zero-hour contracts and uncertainty.

Educational attainment influences physical and mental health and wellbeing. As powers emphasises, language literacy can help emotional literacy (Powers, 2015). Rates of smoking, obesity, cardiovascular disease, asthma, cervical cancer, depression and overall mortality are all higher in those of the lowest levels of education and income (Freudenberg & Ruglis, 2007; Adler & Rehkopf, 2008). Galea and colleagues reported that six factors contributed to mortality rates, low education, low social support, poverty, income inequality, racial segregation and area-level poverty, were important (Galea *et al*. 2011). It can be argued that all these factors are inter-related, but further work is needed to explore the directionality of causes. Lower levels of education are certainly affected by poverty and poor housing as well as home environment. School environment in poor areas often have very high teacher/student ratio, thereby not be able to pay enough attention to those who need it. Poor grades then add to a poor sense of self-achievement or self-esteem.

Employment

Work environment contributes to a sense of purpose, belonging and peer support. Unemployment or insecure employment can add stress to a person as these possibilities may not allow enough financial renumeration. Further, insecure and high-pressure environments may be characterised by insecurity, zero-hour contacts and uncertainty. In high-pressure environments, individuals may feel stressed and use alcohol and substances. Unemployment and job insecurity and micro-level internal stressors lead to poor self-esteem, hopelessness, psychosocial/cognitive problems and personal insecurities (McGregor & Holden, 2015). The longer the period of unemployment, the higher the likelihood of rates of suicide (Classen & Dunn, 2012). It is critical to recognise that unemployment across genders, ages and ethnic groups can have a differential impact on individuals and their families.

Poverty

Poverty can be absolute or relative. These comparisons can be made across international, national and regional parameters. Even within the same community, there can be different levels of deprivation and poverty. Poverty also functions as a proxy measure for deprivation of material goods.

Poverty and neighbourhood deprivation can contribute to family stress, domestic violence and increased substance misuse. Poverty increases rates of anxiety, depression, psychological distress and cognitive depletion (Sareen *et al*. 2011; Mani *et al*. 2013). Lower-household incomes show high rates of suicidal behaviours (Sareen *et al*. 2011; Kingston, 2013). Like other social determinants, not only are rates of various psychiatric disorders higher in individuals living in poverty but those with mental illnesses may also drift into poverty.

Manseau notes that factors mediating the relationship between poverty and mental ill health occur at both the individual and family levels (Manseau, 2015). There are other variables which influence the impact of poverty on mental health and wellbeing, including marital stress, parental characteristics and emotional deprivation along with neighbourhood poverty and deprivation. Those receiving social security benefits may affect social relationships and cognitive abilities, especially among children and young people. Geographically, concentrated poverty in places like favelas and slums can be particularly detrimental to mental health in children. Rural and urban poverty may differ, for example, rural poverty can be associated with limited opportunities for employment (Simmons *et al*. 2008; Smokowski *et al*. 2013).

Food insecurity

Uncertainty about where an individual's food comes from and when is defined as food insecurity (Compton, 2015). Apart from unaffordable nature of food, poverty, access and availability will all play a role. Food insecurity is likely to lead to malnutrition, especially for young children and adolescents whose brains are still developing. Mental health consequences will include anxiety, sense of powerlessness, hopelessness and depression (Alaimo *et al*. 2002; Huddleston-Casas *et al*. 2009). Food insecurity can also lead to generalised anxiety disorder (Whitaker *et al*. 2006). Thus, parental and familial stress can change the domestic environment and affect children's attachment patterns and growth, both physical and mental health. Even when families can afford meals, the increasing cost of fresh food, vegetables and fruit, can make it unaffordable, and individuals and families tend to rely on relatively inexpensive high-calorie low-nutritional fast-food

which can then lead to obesity. Further, those with existing mental illnesses may also face food insecurity due to inadequate finances, employment and social support.

Housing and built environment

Inadequate, poor quality and insecure housing adversely impact the mental health and wellbeing of families, communities and individuals. This influence occurs in a number of ways – across physical (or structural), psychological and social facets. Structural problems in housing may influence physical health, for example, mould or pest infestation can cause allergic disorders or asthma (Howden-Chapman et al. 2007). Related worries around health and safety can lead to anxiety, hopelessness, helplessness, feeling trapped and depression for some. Further, housing instability and insecurity may further contribute to domestic violence, substance abuse and inadequate schooling for children. Evans found that specific features of one's housing related to insecurity influence mental health of individuals, especially children (Evans, 2006). Children and young people may go on to develop emotional and behavioural problems (Miller & Rasmussen, 2010) and poor attention (Ziol-Guest & McKenna, 2014).

Homelessness also has high rates of psychiatric disorders. In particular, homelessness has been associated with anxiety, depression, substance misuse and suicidal ideation (Magdol, 2002). Without safety nets, individuals with severe serious mental illnesses are likely to fall into homelessness, thus creating a vicious cycle.

Braveman and Gottlieb emphasise that, in addition, factors like health-related features of neighbourhoods influence health-related behaviour (Braveman & Gottlieb, 2014). These include safe spaces, green spaces, ease of accessibility to walk, access to nutritious diet, fast-food restaurant density and proximity to recreational areas. In doing so, the built environment, limited community social connectedness and poor access to affordable transport also affects mental health (Shaw, 2004; Suglia et al. 2015). Urban areas have consistently associated with high rates of psychiatric disorders suggestive of a detrimental impact of urban deprivation, but that is not say that rural idyll is somehow protective (Bhugra et al. 2019).

Discrimination

Discrimination, on the basis of race, gender, religious affiliation, sexual orientation and even skin colour, is rife around the world. As a result, the person who is being discriminated against is likely to feel inferior, may feel trapped and develop low self-esteem.

This can make individuals more vulnerable to mental health conditions such as depression.

Minority ethnic status and discrimination

Studies from the UK (Pinto et al. 2008; ONS, 2017) and elsewhere have shown that rates of schizophrenia in African-Caribbeans and other ethnic minority groups are between 2 and 14 times that of the local population and this has been a consistent finding in the past six decades or so. Various hypotheses have been put forward and discrimination (based on structural/institutional racism) is postulated as one of the major causes. What is even more interesting is the observation that it is the perception of discrimination which may be contributing to these rates (Veling et al. 2008; Pearce et al. 2019). Prejudice, discrimination and social exclusion all contribute to poor physical and mental health (Rafferty et al. 2015). These authors highlight that the psychological and physiological stress mechanisms are similar no matter what causes discrimination.

Racism represents a set of social arrangements which 'offers' a set of privileges related to power, wealth and education as a result of being a member of one group. The 'otherness' or 'othering' gives preferential status. This is often on the basis of skin colour or race (with biological undertones on ancestry or physical characteristics). Refferty and colleagues measured discrimination on the basis of unfairness in a number of domains (Rafferty et al. 2015). The discrimination can be both acute and chronic. The latter is of interest because it places the individual in a chronically stressed and vulnerable position.

Discrimination is associated with high rates of various psychiatric illnesses and with poorer outcomes. These can be attributed to delayed help-seeking, poor therapeutic alliance and chronicity of symptoms. Rafferty and colleagues also note that chronic stress can contribute to life time prevalence of mood and depressive disorders across all race/ethnic groups (Rafferty et al. 2015). One discrimination experience is sufficient, they note, in making individuals experience symptoms of anxiety. Further, minority individuals with mental illness may experience double jeopardy related to barriers to accessing care.

Sexuality and discrimination

Similar discriminatory experience reported in lesbian, gay, bisexual, transgender and queer (LGBTQ+) also show higher rates of anxiety, depression, suicidal ideation and suicidal acts (Meyer et al. 2008; Figueiredo & Abreu, 2015; Russell & Fish, 2016; Ross et al. 2018; Gilmour, 2019). A number of studies have confirmed extremely important observations that once equality in law is established, these rates of psychiatric disorders

start to drop (Hatzenbuehler *et al.* 2009, 2010, 2012; Hatzenbuehler, 2017). Thus, it is clear that equity and equality in law can lead to better acceptance, possible lower prejudice, but certainly better self-esteem and self-image thereby making vulnerable individuals feel valued. Social isolation, lack of connectedness and policy/environment influence rates of depression in LGBTQ+ youth (Wilson & Cariola, 2020). Prejudice and social stress play a major role in contributing to the rates of psychiatric disorders in LGBT populations (Meyer, 2003). McLaughlin and colleagues found that black respondents in their group reported highest levels of past discrimination followed by LGBT individuals, thereby contributing to anxiety and depression (McLaughlin *et al.* 2010).

Impact of COVID-19

The current COVID-19 pandemic has shown, if indeed any further evidence was required, the impact of social determinants of health. Examples include:

- ACEs: the impact of COVID-19 pandemic on children and young people leading to poor socialisation, isolation and quarantine can be seen as adverse experience and it will of interest to do long-term follow-up studies to ascertain how it affects their development (Newlove-Delgado *et al.*).
- Education: There has been significant disruption to ability of children to access education during the pandemic, with educational services being suspended at times, or delivered virtually rather than face to face. Periods without education are likely to result in educational attainment gaps, often in-line with school resources and familial socio-economic status.
- Employment and poverty: The full impact of the COVID-19 pandemic on the macro-and micro-economy is yet to be seen. It is likely that rates of unemployment will go up at times and the effect on individuals, their families and communities at large will be devastating. This is particularly important in countries that have limited social security and welfare safety nets. Some groups have been impacted more than others, and this includes young people and those working as labourers and in the service industries. Further, should there be a prolonged period of economic hardship, recession associated adverse mental health outcomes such as increased rates of depression and suicide may emerge. In addition, even amongst those in work, certain occupations have been more exposed to infection and less protected in terms of access to personal protective equipment – these include groups such as food chain workers, delivery drivers, transport staff, teachers/educators and healthcare professionals.

- Food insecurity: In England alone, 1.3 million children rely on school meals and in the middle of COVID-19 pandemic, the UK government stopped these as schools were closed, but subsequently relented as a result of a campaign led by a high-profile sports player. Butler notes that nearly half a million children faced spending half-term under increased lockdown restrictions, but without free school meals (Butler, 2020).
- Housing: homeless individuals and families have had among the highest rates of viral transmission (Baggett *et al.* 2020). This has been due to living with crowded spaces, with challenges with COVID-19 screening, testing and contact tracing.
- Minority ethnic status and discrimination: ethnic and racial minorities in high-income countries have been disproportionately affected and in low- and middle-income countries, often poor urban migrants have suffered (Abrams & Szefler, 2020).

Policy implications

Mental healthcare often focuses on cure after disease and illness have set in, whereas perhaps more emphasis needs to be paid to preventive and public health measures for mental health. Marmot has illustrated differences in longevity based on socio-economic status (Marmot, 2015). Social and environmental influences are said to contribute 45%–60% of variations in health status (Donkin *et al.* 2018). As such, social determinants must form a crucial part of prevention, assessment and management of ill health, in both individual clinical interactions and across health system levels.

Policy development related to the social determinants of health needs to work at multiple levels as illustrated in Fig. 1. Donkin and colleagues argue that any progress needs to be measured globally (Donkin *et al.* 2018). The impact at various levels can be extremely complex. For example, some individuals in spite of their early childhood adverse experiences may cope with subsequent stressors, whereas others may not manage it.

Access to healthcare directly depends on social and cultural factors which fund and decide on types of healthcare systems and individuals' explanatory models which dictate where the individuals go and how the pathway to care develops. This access is also likely to be influenced by urban/rural settings of individuals and healthcare providers. Many of these can be modified according to relevant changes in policy. On the other hand, funding and resources will also depend on actual healthcare policy and whether this takes the population healthcare needs into account or not thus creating a complex multi-level system.
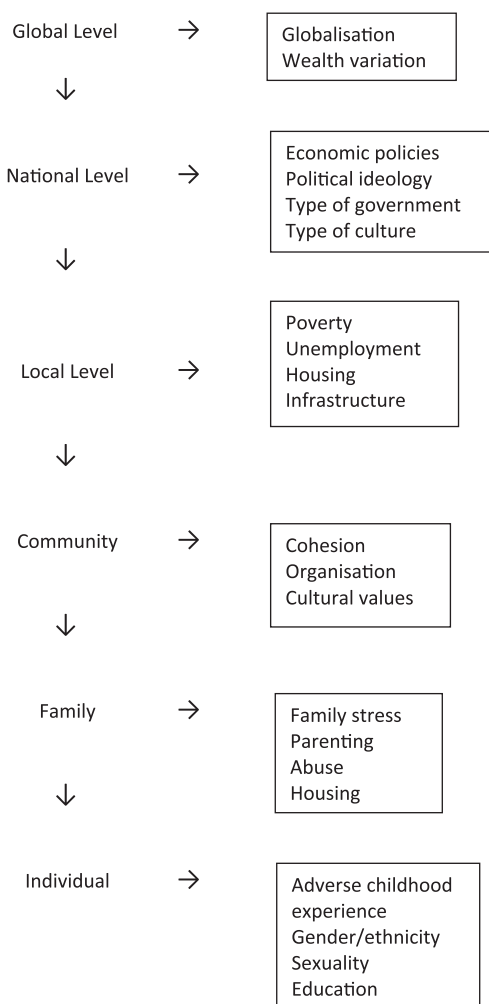
Global Level → | Globalisation
Wealth variation |

↓

National Level → | Economic policies
Political ideology
Type of government
Type of culture |

↓

Local Level → | Poverty
Unemployment
Housing
Infrastructure |

↓

Community → | Cohesion
Organisation
Cultural values |

↓

Family → | Family stress
Parenting
Abuse
Housing |

↓

Individual → | Adverse childhood
experience
Gender/ethnicity
Sexuality
Education |

Fig. 1. Levels of policy impact.

We outline guiding principles for clinicians and policy-makers related to the social determinants of health:

1. History taking during clinical interactions that explores the patient's social determinants of health: this will allow for clinicians to establish factors that may cause and perpetuate ill health, and potential areas of focus in management. Kenyon and colleagues have recommended the use of acronym I-HELP to ascertain social history. These include Income (including food income), Housing, Education, (legal status/if indicated) Literacy, and Personal safety at domestic and social levels (Kenyon *et al.* 2007).
2. Holistic management planning, including use of social prescribing where appropriate: Younan and colleagues suggest that social prescribing may be one way of tackling social determinants (Younan *et al.* 2020). Using culture broker or community link worker models, individuals with long-term

conditions can be referred for suitable secure housing for example.

3. Clinician as an advocate: Mental health professionals have a moral imperative to advocate for their patients, carers and families. In order to advocate, clear scientific messages in a straightforward language have to be created. If the individual clinicians feel that they are not interested or do not wish to be involved, they should work with local community organisations and local parliamentary representatives to help tackle health inequalities and social determinants which contribute to these inequalities. Healthcare professionals may require appropriate training in helping develop policy.
4. Human rights-based policies: human rights should be placed at the centre of the mental public health agenda. Equal access to services must be enshrined in law. Tackling rights-based inequalities such as related to employment opportunities can lead to secure, reasonably well-paid jobs with security and control. Further, a rights-based approach also helps to tacking those with mental health conditions facing workplace discrimination. Organisational policies must reflect and accommodate these. Rights-based approach should also extend to efforts to establish a universal social security system, and a fair tax system which is progressive.
5. Adequate funding for public health and public mental health: fundamental causes of health inequalities, as we have demonstrated in this manuscript, include social determinants but are also affected by broader global economic forces, geopolitical factors and national political ideologies and societal attitudes to equity and fairness. Social determinants as described are related to wider environmental influences which mould individual's experiences. Thus, public health and public mental health are the key to improving individual physical and mental health.
6. Cross-governmental public health impact assessment(s): ensuring that all policies have an assessment of their health impact as a matter of routine is important. For example, in housing planning strategy, to ensure provision of green spaces and healthy-built environment, as well as undertaking a board energy-efficient approach.
7. Collaborative working: inequalities in wellbeing, healthy life expectancy, morbidity and mortality can be eliminated provided the political will is there. Often laws and policies may exist, but their implementation is poor or limited. Policy-makers need to develop joined up policies from public health, including mental health, education, employment, housing, accessibility to affordable food, relaxation, sports and physical activities across the lifespan. Furthermore, examples of good practice need to be shared, so that other groups and communities can learn from these rather than reinvent the wheel.

Table 1. *Clinical and policy recommendations for discussed social determinants of mental health*

	Clinical	Policy
Adverse childhood experience	Early recognition in clinical assessment and referral to suitable interventions. This may be through suitable trained carers and supporting families by helping reduce violence, and reducing drug and alcohol use.	Support of prevention, assessment, early intervention and provision of safe, stable and nurturing environments can help. In addition, adequate and well-funded social childcare and social services.
Education	Clinical staff must be trained to explore this and be encouraged to ensure that they work with schools, teachers and boards to emphasise the importance of education, reduction in bullying, physical activities, etc.	High-quality pre-school programmes for young children living in poverty can help improve cognitive and social development in childhood. Consequently, this improves economic attainment in adulthood with a reduction in criminal activities (Powers, 2015).
Employment	Clinicians will often enquire about simple job status, but they need to explore the quality of employment and job satisfaction. It is crucial that they are aware of local organisations and schemes where those who need it, find the help. Various sheltered training and employment may be available. In some cases, social prescribing and social scaffolding may provide support and training.	As advocates for their patients, clinicians can attempt to influence policy-makers so that suitable policies are framed. Job creation schemes, support for re-training, learning and secure employment can be set in at various policy levels.
Poverty	Clinicians need to be cognisant of the impact poverty can have on large parts of one's life, and that of dependants including children. For example, clinicians during therapeutic interactions should actively consider impact to diet and potential for malnutrition and stunted physical growth in vulnerable individuals.	The challenges in dealing with poverty are often outside the clinical encounters and settings and have to be set at policy levels. As Lawson and colleagues point out, getting the richest 1% to pay just 0.5% extra tax on their wealth over the next 10 years would equal the investment needed to create 117 million jobs in sectors such as education, childcare, elderly care and health (Coffey *et al.* 2020). Women and girls are likely to benefit from these changes given gender-based inequality and poverty. Investment during and after the COVID-19 pandemic in infrastructure is needed to increase the job prospects and hence reducing relative and absolute poverty.
Food insecurity	Social prescribing may help. In most psychiatric institutions, patients were traditionally given vegetable patches and flower beds to look after as part of their occupational therapy and often vegetable thus acquired were used in the hospital kitchens. Chronic severe mental illnesses may not allow patients to shop for their food or cook and thus they may go hungry and thereby worsening their mental state. As such, clinicians need to be on the lookout for signs of malnourishment and assess these as part of physical and mental state examinations. Screening tools may be used or simple exploration as part of lifestyle may help the clinician to obtain a broader picture.	As advocates, clinicians can influence policies and, at local levels, work with food banks, schools and non-governmental organisations and charities to help improve access to food and reduce food insecurity. There are also policy efforts required across global food supply chains, and related to climate change, to ensure equitable global access to food.

Table 1. (Continued)

	Clinical	Policy
Housing	Clinicians must work with appropriate social services to make referrals for safe housing. Clinical interactions should consider the wider built environment and ensure that suggested management plans are contextually relevant (i.e. encouraging walks in parks may be of limited benefit if there is no adequate available green space).	Policy changes are a crucial contributing factor. Since the mass selling off of social housing in the 1980s in the UK, the number of homeless individuals has gone up and has created a homeless population who are either living in hostels or in insecure, overcrowded settings. Social housing and access to housing as part of infrastructure policy is necessary.
Discrimination	The impact of discrimination on mental health and wellbeing should be explored or discussed in clinical settings. Heterogeneity of groups and experiences, as well as responses to discrimination, must be considered, and not perpetuated during clinical interactions.	Multi-level stigma needs to be understood with research, and appropriate national-, state- or local-level policies may be indicated to tackle discrimination so that individual's mental health and wellbeing, along with functioning, can be improved.

8. Community engagement and patient and public involvement (PPI): public services must involve local communities in the design and development of local services according to their need and not ability to pay. Communities must be supported in maximising the potential of the physical and social environments to support health and wellbeing. It is crucial that community organisations are involved in helping develop policies, deliver and also in advice to the communities.

9. Supporting vulnerable groups such as children and young people: mental health of children and young people should be seen as an urgent priority and sufficient resources need to be made available at home, schools and communities according to age-based needs. Specific demographic-related challenges such as related to social media must be considered and tackled, and it has been suggested that regulatory policy may be necessary (O'Keeffe & Clarke-Pearson, 2011).

Table 1 applies the clinical and policy principles discussed above to the seven social determinants of mental health discussed earlier in depth: ACE, education, employment, poverty, food insecurity, housing/built environment and discrimination.

Conclusions

Social determinants are critical to mental health and wellbeing. These include housing, education, employment and other factors which may contribute to material and emotional poverty. The research evidence underlines the importance of these factors in keeping individuals and communities healthy. It is worth reminding ourselves again that although various social determinants have been described separately, these are interlinked and affect each other and lead to cumulative effects. In order to ensure that health is joined up with other factors, such as education, employment, judiciary and housing, policy-makers must avoid silos. Every policy must have an impact assessment on physical health and mental health. Policy-makers need to 'understand scientific evidence and must work with researchers, clinicians, communities and patients to help develop and implement rights-based policies. Affordable education, housing and healthcare in the context of reasonably well-paid employment in this period of COVID-19 pandemic have taken on a significant importance. Addressing ACEs through education, early recognition and early interventions are important steps and can help support the next generation of adults. A better and clearer understanding of various social determinants can help reduce health inequalities. The impact of local cultural values and expectations needs to be taken into account when formulating and

delivering policies on equity and equality. Society and its environment influence policies and policy-makers should also be addressing the long-term impact of their policies. Learning from other organisations and working with them to bring about sustained change is critical. Clinicians, managers, community organisations must work with policy-makers to bring about joined up thinking in improving the population's mental health.

Conflict of interest

The authors do not have any conflict of interest to declare.

Ethical standards

The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committee on human experimentation with the Helsinki Declaration of 1975, as revised in 2008. The authors assert that ethical approval for publication of this literature review was not required by their local Ethics Committee.

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