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COVID-19 and Mental Health and Wellbeing Research: Informing Targeted, Integrated, and Long-Term Responses to Health Emergencies

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The COVID-19 pandemic has posed many questions as to how governments should best respond to health emergencies, including questions as to how to develop responses that consider mental health and wellbeing impacts. This paper argues that mental health and wellbeing research should have an important role in informing responses that are targeted, integrated and long-term. It provides relevant examples of mental health research, policy, and practice in the UK, including research on the dynamic and complex relationships between mental health and social determinants of mental health such as poverty and social support. A particular focus here is on the impacts of the pandemic on children's and young peoples' mental health and wellbeing. The paper continues by referring to examples of the role of economic research in informing trade-off decisions. The paper ends by describing the role of networks and partnerships between policy, practice and research to ensure that relevant evidence is produced and appropriately disseminated during health emergencies and beyond. The author presents a perspective in this paper, which draws on her own research and research conducted by the Centre for Care Policy and Evaluation Centre (CPEC) at LSE.

Keywords: COVID-19; pandemic; health emergencies; mental health; evidence; knowledge; economic; policy

1. Introduction

The COVID-19 pandemic has posed many questions for governments around the world, not least in terms of how to best respond to health crises while still maintaining the general health and wellbeing of the nation. The standard response of most governments has been to impose lockdown measures, which have had a disproportionate impact on children's and young peoples' mental health and wellbeing.

More generally, the strong focus on the physical impacts of the virus might have inhibited governments' ability to recognise the impact on mental health and wellbeing that policies such as school closures and social contact restrictions entailed. As argued in the paper by Daly and Delaney in this issue, a stronger focus on the mental health and wellbeing impacts of the pandemic might have led to the development of more balanced and nuanced government measures, including some that prioritised the needs of children and young people. Daly and Delaney propose the use of policy frameworks and tools to ensure that mental health and wellbeing data are available on-time and are considered by decision-makers during health emergencies. This, however, also raises questions about the types of mental health and wellbeing evidence that should be used and the contributions that they can make in responses to health emergencies. In addition, there are questions of how decision-makers can have timely access to mental health and wellbeing data that they can use in response to health emergencies, and what the role of those involved in producing and disseminating such evidence should be.

Building on some of the arguments made by Daly and Delaney, I reflect on these questions in the context of the UK by drawing on examples of research conducted by myself or colleagues at CPEC, and consider what their potential role may be in informing targeted, integrated and long-term responses to health emergencies. This includes the role of economic evidence in helping decision-makers faced with difficult trade-offs between different courses of action. Assuming the use of evidence in policy and practice as a shared responsibility between those using, generating and disseminating evidence, I provide a few examples of how stakeholders can be involved in research. I refer to children and young people as a population whose mental health and wellbeing needs deserve particular attention during health emergencies.

2. Relevance of mental health research to informing policy responses to health emergencies

In the UK, a wide range of mental health and wellbeing data has been collected throughout the pandemic, either as a part of ongoing research or as part of research conducted specifically in response to it. This data has provided important knowledge about the population groups most affected by the pandemic, and revealed significant patterns in

terms of the pandemic's effects on mental health over time, and helps us understand the underlying mechanisms that explain differing rates of mental health problems for different populations [1, 2]. In addition, experiences from past, comparable events also provide further evidence that can be drawn upon, including research that investigates mental health impacts from previous economic and health emergencies or shocks. This kind of research is particularly helpful in showing the very long-term impacts and in offering explanations for these consequences and identifying their root causes. Drawing from two areas of research concerned with two important social determinants of mental health, i.e., poverty and social support, the following examples seek to illustrate opportunities for using mental health evidence to inform targeted, integrated and long-term responses to health emergencies.

Example 1: Mental health and poverty

National data revealed that the pandemic did not affect people's mental health equally, and that certain groups, including those living in or at risk of poverty, were much more affected. For example, among the general population, depression prevalence was 11 percent higher in deprived than in the least deprived areas (28% vs. 17%) [3]. Whilst one in ten of those earning £50,000 or more experienced depressive symptoms, the prevalence for those earning less than £10,000 a year was four in ten [3]. **Figure 1** shows this strong relationship between depressive symptoms and gross personal income, with the analysis of longitudinal household survey data [1] showing that financial difficulties were a main predictor for deterioration in mental health during the course of the pandemic.

As well as this, other data shows that children's and young people's mental health has been particularly affected by the pandemic [4]. Whilst most impacts are likely to be short-term, it is likely that some of them will be long-term, especially when they are linked with a reduced ability for those affected to find jobs and with harm to their long-term earnings prospects. For example, a recent report has estimated the long-term 'scarring' cost of the pandemic to young people entering the labour market in 2021 in terms of lost earnings and damage to employment prospects at £14 billion [5].

The link between poverty and mental health and the vicious cycle which it inculcates is well established, as is the potential for it to lead to substantial long-term harms over a person's life [6]. For example, poverty can adversely affect children and young people's brain development and functioning and lead to stress-driven or otherwise impaired decision-making, in which future benefits are discounted over more immediate rewards, thus increasing the likelihood of failure in the education system or in future unemployment [7, 8].

There is a growing understanding that interventions which seek to reduce poverty have the potential to positively influence mental health [9], although important evidence gaps remain in terms of what constitutes the best design for programmes or interventions that seek to reduce poverty whilst also improving mental health, and how to vary this design for maximum efficacy with different populations [10]. Two examples of poverty alleviation programmes, cash transfer and debt advice programmes, are referred to in the following to illustrate their relevance in addressing the vicious cycle of poverty and mental health problems.

Cash transfer programmes, which provide regular cash payments to individuals or households identified as at risk of poverty, are one of the most frequently used poverty-alleviation measures globally. Their use has been heavily expanded in many countries over the course of the COVID-19 pandemic [11]. Evaluations of these programmes provide important evidence as to the effects that poverty alleviation measures can have, demonstrating that they can achieve a range of health and wellbeing impacts for individuals and communities [9]. Whilst not one of their intended programme goals, benefits can include a reduction in certain mental health problems, such as depression, including for children and young people living in households receiving cash transfer payments, or who receive cash payments themselves [10].

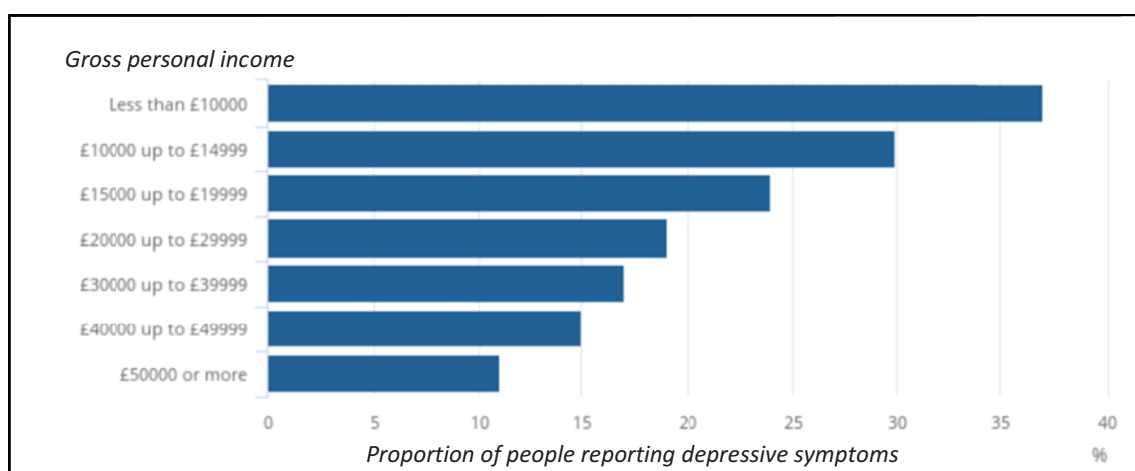


Figure 1: Relationship between depression and income during the COVID-19 pandemic: Percentage of working age adults with depressive symptoms by gross personal income, Great Britain, 27 January to 7 March 2021.

Source: Office for National Statistics – Opinions and Lifestyle Survey.

However, depending on the design and implementation of programmes in practice, they can also have adverse effects on children and young people's mental health; for example, when children or young people struggle to adhere to a programme's conditionalities, such as regular school attendance [12]. Whilst most evidence on cash transfer programmes stems from low- and middle-income countries, there have been evaluations of similar programmes, like universal credit schemes, in high-income countries, including in the UK. Findings here suggest that the introduction of the universal credit scheme in the UK, which replaced existing benefit schemes and included an increased use of conditionalities and sanctions, led to a significant increase in psychological distress and depression among unemployed individuals affected by the policy [12].

Debt advice programmes, which seek to alleviate poverty by supporting people to pay off their debt, are another commonly used welfare measure in the UK. An estimated 2.4 million children and young people in England and Wales live in households with 'problem' debt, of which a fifth are thought to have low wellbeing [13]. National surveys further suggest that up to a quarter of young people have already experienced debt themselves, with many reporting this as substantially affecting their mental health [14, 15]. Given this, it is unsurprising that debt advice programmes can play an important role in improving young people's mental health. Studies have shown that they can help preventing families and individuals from becoming homeless and from falling under the poverty line, as well as in alleviating the mental health effects associated with debt [16]. In addition to improving general health and reducing anxiety, they can increase feelings of hope and optimism towards the future although more research is needed to establish those effects and possible pathways to mental health impact [17].

Both these examples, illustrate that programmes in one area influence outcomes in the other thus highlighting the importance of integrated responses. In a recent *Lancet Psychiatry* commentary [11], myself and colleagues argue for the need for integrated responses to improve the life chances of young people during and after the pandemic. We recommend that the integration of mental health into poverty alleviation measures should ensure that: 1) welfare measures specifically target young people at risk of mental health problems; 2) the potential impacts of poverty alleviation programmes on young people's mental health are considered when (re-) designing and improving programmes; 3) this includes the use of evaluation frameworks that include mental health; 4) mental health education and promotion resources are available through programmes; and 5) mental health treatment is promoted and offered through programmes.

Calls for integrated action to address poverty and mental health together have been made long before the pandemic [13, 18]. A few examples already exist in the UK, which demonstrate the feasibility of such integration efforts. For instance, specialised online mental health programmes have been developed for integration with financial services, which seek to address negative thinking patterns, avoidance habits and impulse spending behaviours [15]. Other examples of interventions, introduced before or during the pandemic, include measures to protect people using mental health crises services from creditors [20], and employment advice services offered alongside mental health treatment [19]. More research is needed to understand whether those or other interventions are (cost-)effective.

Example 2: Mental health and social support

Measures taken by governments in the UK and in many other countries to reduce the spread of the COVID-19 virus have had substantial impacts on people's social lives. In particular, children's and young people's access to their regular social networks having been affected through measures such as school closures. Loneliness among children and young people increased sharply during the pandemic, with one in three reporting to feel lonely often or most of the time [18]. Even before the pandemic, one in ten children or young people in England said they often felt lonely, which is a higher proportion than for the adult population [19]. However, not all children or young people have been equally affected. Those with pre-existing mental health problems, living in or at risk of poverty, or from Black, Asian or mixed ethnicity backgrounds have been more likely to experience loneliness [20]. Whilst more research is needed to establish the potential longer-term impacts of the current COVID-19 pandemic on social support networks or loneliness, and the reasons for them, given that childhood and adolescence are important years for building and developing social skills and relationships for the future, it is plausible to think that the disruption to social life, including at school or workplaces, might have long-term impacts for some children and young people. Evidence from previous lockdown measures in response to other pandemics also suggests that social isolation and loneliness can persist after enforced isolation ends [21].

The close link between mental health and social networks, and the support perceived as coming from such networks, is well established [22]. Most research shows the protective effects of social support, those studies show the negative long-term impacts of low social support or loneliness on quality of life, and for older people, on morbidity and mortality, or the negative effects of a lack thereof, on mental and physical health [23, 24]. Policy responses before the pandemic included a loneliness strategy with allocated resources to implement proposed actions, and the appointment of a loneliness minister [25]. In addition to funding allocated under pre-pandemic policies, the government invested, in response to the pandemic, £31.5 million to organisations supporting people who experience loneliness [26].

Whilst mental health and wellbeing research has played an important role in highlighting the importance of addressing loneliness to increase population wellbeing, there is currently limited and inconclusive evidence about what works and what is good value for the money in this area [27]. The absence of evidence on what works has potentially

encouraged well-intended but potentially oversimplified recommendations or interventions, such as those that postulate or assume that simply increasing numbers of social contacts will automatically reduce loneliness [28]. While those suggested actions might have benefits for some, they might not be feasible or appropriate for the populations most at risk of loneliness, including marginalised children and young people. In our recent systematic review [29], which investigated the 'logic model' behind interventions that successfully mobilise social support for children and young people at risk of social isolation, we found that most interventions involved complex and long-term processes that endeavour to build hope, self-esteem and trust. While often assumed to be low-cost, interventions in this area, if targeting disadvantaged groups, required substantial resources in the form of professionals' and volunteers' time, whether from public health, social care or education services, and some required joined-up efforts from communities [29]. The complex mechanisms between social support and mental health have been subject to more recent studies, including studies concerned with the impact of the pandemic on social support [21, 30–32].

Positively, the national COVID-19 Mental Health Health and Wellbeing Recovery Action Plan [26] sets out an integrated, cross-sector response to address the mental health and wellbeing impacts of the pandemic, recognising both, the importance of addressing social determinants of mental as well as of addressing the need of children and young people in particular. For example, the plan includes actions to put in place training for teachers to recognise and support children and young people with mental health problems at school. It also includes actions for the provision of additional mental health support to young people not in education, training or employment. However, the plan does not set out long-term measures. Especially as current government measures to protect financially against the implications of lockdown measures on jobs and employment will be ending, so will their buffering and protective effects on mental health and wellbeing, thus exacerbating the need for long-term responses [18].

3. Role of economic evidence in informing trade-offs

As argued in the previous section, mental health and wellbeing research should have an important role in generating knowledge about the complex, multi-dimensional and interconnected nature of mental health and its social determinants. By generating knowledge about root causes and connections, it can inform targeted, integrated and long-term policy responses to important societal problems. However, given limited government budgets, decision-makers are often left with difficult trade-offs in terms of choosing between different policies. The large and far-reaching impacts of the COVID-19 pandemic require careful consideration of particularly complex trade-offs between and within areas of wellbeing and populations.

Economic evidence has—together with other considerations, such as those of equity and fairness—an important role in informing decisions about which population groups to target and which kinds of interventions are best designed to maximise long-term wellbeing given different government budgets. Economic research can inform difficult trade-off decisions by making the likely costs and economic consequences linked to different courses of action more transparent. Although often challenging to conduct [33], economic research has an important role in assessing costs and benefits from wider family, community, societal and long-term perspectives, thus highlighting the less 'visible' costs or cost savings for and across different government sectors. Economic modelling approaches, which project long-term costs and benefits, can be a helpful tool to inform decisions amid uncertainty, including in situations when there is not sufficient time or resources to conduct new studies, or where it is impossible to get all required data from one data source [34]. A couple of examples of how economic research, conducted by CPEC at LSE has informed resource allocation decisions in the UK are presented below.

By highlighting the size of the problem, and the potential opportunity costs for not investing into an area, cost-of-illness or cost impact studies can inform priorities for action. For example, research which showed that over a third of the total costs that can be attributed to dementia are those linked to informal care inputs by family members and other unpaid carers [35] informed policies and actions concerned with supporting unpaid carers, such as those outlined in the *2009 National Dementia Strategy* [36] and the *2019 NHS Long-Term Plan* [37]. Research [38] showing the high costs of maternal mental health problems during the perinatal period, occurring due to long-term impacts on mothers as well as on children, led to substantial investment into specialist perinatal mental health services in the UK as manifested in the *Five Year Forward View for Mental Health* [39] and *NHS Long-Term Plan* [37]. Utilising evidence from longitudinal studies, on the long-term impacts of maternal mental health on children's emotional, behavioural and cognitive problems, the research highlighted the losses of quality of life and productivity in addition to the costs for publicly-funded services including not just those of mothers giving birth but also those of children who have been exposed to maternal mental illness.

Whilst cost-of-illness studies generate important evidence about the size of a problem, and thus help in prioritising populations and problem areas, they do not provide information that can inform decision-making about investing in alternative courses of actions to address a problem. Cost-effectiveness studies, which measure and compare costs and outcomes linked to different interventions, are required for this. An example of an economic evaluation that informed policy action is the analysis of parenting programmes that seek to improve children's or young peoples' conduct problems, and which showed that these programmes can achieve large cost savings—many of which are achieved due to a reduction in costs linked to criminal justice services and costs to victims of crime, such as through reductions in ambulance or victim support services [41]. The study is another example of how including a perspective which includes more than just immediate outcomes occurring to the person receiving the intervention influences the economic case for choosing one intervention over another.

4. The use of research in policy and practice

Mental health and wellbeing research needs to ultimately be of benefit to those in need of mental health treatment or support (including prevention and early intervention). For this to be realised, it must also be of use to those policymakers, influencers and practitioners interpreting and using the research findings. Processes by which research informs policy and practice are typically long-winded and complex [42], while the COVID-19 pandemic has highlighted the need for quick and effective processes of translating evidence into practice.

Individuals or organisations that advocate on behalf of certain populations or for certain causes can have an important brokerage function in utilising evidence, including of research commissioned by them. For example, the above-mentioned research on the Costs of perinatal mental health problems was part of the *Everyone's Business* campaign led by the Maternal Mental Health Alliance and used to make the economic case for increasing access to specialist treatment for women. Economic evidence reviewed on interventions to reduce loneliness [27] informed the case for investing into actions by the *Campaign to End Loneliness* and evidence on the costs of inadequate support for early years was used by the Big Change Start Small campaign of the Royal Foundation [40].

Although, as illustrated by those examples, campaigning and advocacy can have an important role in achieving impact, they are probably only suitable for some types of research addressing certain questions. Campaigns have, by definition, a very specific purpose under which the research and its findings are subsumed, meaning that they are limited in their capacity to use research independently or to answer a broader range of questions. Therefore, depending on the purpose of the research, other processes, including those led by researchers or conducted in partnership with different stakeholder groups, might be more suitable. This includes knowledge exchange initiatives between policy, practice and research, which move away from the more traditional 'knowledge push strategies', in which the focus is on disseminating the findings of researcher's work. This means that there is more engagement between the researchers and the stakeholders, enhancing the practical viability of the research.

Two projects led by CPEC, which seek to facilitate the use of research, are described below. The focus of the two projects is on social care users and their carers, which are populations at high risk of poor wellbeing and mental health, and who have been affected disproportionately by the pandemic, in terms of excess mortality and morbidity. The *Economics of Social Care Compendium* project (<https://essenceproject.uk/>) provides synthesised economic evidence about interventions in ways that ensure it is accessible to and useful for decision-makers, adding knowledge that helps them to interpret the evidence, such as information about the quality and relevance of the evidence in the current context. The project has been co-produced with practitioners, policy-makers and service users, and offers a number of knowledge exchange opportunities, including seminars and webinars. Feedback from people using the website and attending seminars has been positive, and the project received further funding from the NIHR School for Social Care Research to continue with its activities.

During the pandemic, international platforms for sharing evidence and resources among health and social care providers, commissioners and users have emerged. An example is the *Long-term Care Covid* platform (<https://ltccovid.org/>), which was started in March 2020 by colleagues at CPEC at LSE with members of the International Long-term Care Policy Network (<https://www.ilpnetwork.org/>). It has expanded rapidly, now including a significant social media presence, and is working alongside many partner organisations. Ultimately, the project seeks to share evidence that can inform the response of the long-term care sector to the pandemic. Its main aims and objectives are to globally share learning on the impact of COVID-19 on people using and providing social care, including unpaid or informal carers, as well as about the factors that mediate and mitigate impacts, and to identify effective policy and practices. Thus far, the project has produced country reports and received inputs from members in more than thirty countries, in addition to a wide range of international reports, articles and blogs, some of which directly informed policy by international organisations such as the World Health Organisation. It holds seminars or events on a regular basis. The work of the project has received significant coverage, especially for producing the first UK and international evidence on the number of deaths of care home residents due to COVID-19 [43].

Both projects, Essence and LTC-Covid build on networks and partnerships between policy makers or influencers, practitioners, service user and carer representatives, and researchers. These often involve developing collaborations in which research is co-produced in processes that include trust-building based on principles of mutuality and equality [44]. Early feedback in response to the COVID-19 pandemic suggests that those partnerships might have had an important role in supporting an evidence-informed approach in response to the pandemic [45].

5. Conclusion

The policy response to the COVID-19 pandemic has focused on responding to the most immediate pressures, which were centred around providing adequate financial protection for those whose existence is most severely affected by lockdown measures or the physical health consequences of the pandemic. However, experiences from past health emergencies and economic crises show that mental health can become a priority of system reform during those times and that there are opportunities for change and for 'building back better' [46]. This includes designing public sector systems that are fit for purpose for future health emergencies. The recent LSE-Lancet Commission on the future of the NHS after COVID-19 recommends the incorporation of mental health strategies into plans to responses for future health emergencies and highlights the importance of mental health evidence in informing such responses [47].

This paper provides examples of how mental health and wellbeing research can potentially inform policy responses that tackle complex societal problems, including those posed during and after health emergencies. This included research that generates knowledge about the root causes of poor mental health; mechanisms and factors that matter the most for addressing mental health problems; and examples of economic research that informed resource allocations from a long-term perspective and from the perspective of different parts of society. As argued in this paper, economic research in mental health has an important role in informing the difficult trade-off decisions between health, economic and social priorities that are typical for health emergencies. In order for relevant research to be produced and disseminated not only into producing relevant research but also effectively and efficiently during health emergencies, government and non-government institutions should invest into building, developing and maintaining partnerships and networks between policy, practice and research.

Competing Interests

The author has no competing interests to declare.

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