COVID-19 restrictions: impact on obesity in people with severe mental health conditions

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ABSTRACT

Background

Whilst the COVID-19 pandemic's negative impacts on the general population's mental health have become apparent to both experts and laymen alike; the effects on adults with severe mental illness (SMI), and particularly the impacts on their nutritional and physical health, have been overlooked. Accordingly, this commentary will discuss and raise awareness of the impact on weight management and dietary intake for adults with SMI.

Methods

This commentary article was borne out of discussions between academics, clinicians, and an expert by experience as part of wider survey research exploring supporting adults with severe mental illness to manage their weight.

Results and discussion

This commentary discusses the impact of the COVID-19 pandemic on inpatients with severe mental illness, but also reflects on wider infrastructure and systemic issues that highlight difficulties faced by service users to manage both their weight and mental illness. For instance, socioeconomic impacts contribute to poverty and food insecurity which affects access to dietary quantity and nutritional quality. Distancing and restriction measures affect community-based service users' access to both physical and mental healthcare and may precipitate relapse of mental health difficulties. Additionally, iatrogenic and psychologically driven weight gain coupled with disruption of regular weight monitoring may lead to increasing diabesity rates.

Conclusion

Obesity is a multifaceted issue with a cause and effect that is complex, particularly for those with severe mental illness who may face particular barriers to receiving both physical and mental health support, which can impact on their weight management.

INTRODUCTION

The following commentary highlights the impact that COVID-19 has on the weight and dietary habits of adults living with severe mental illnesses; formed from the recent experiences and anecdotes of clinicians, researchers and an expert by experience.

Amidst the 2019-2022 coronavirus (COVID-19) pandemic quarantine restrictions, social distancing, job losses, financial difficulties, and housing and food insecurities, were many of the difficulties that people faced and are continuing to experience.[1] In particular, there is an emerging body of evidence surrounding COVID-19's impact on mental health and obesity.[2-5] Concerningly, much evidence highlights the growing burden of obesity and mental health issues affecting already disadvantaged groups; particularly those of lower socioeconomic status (SES) and Black, Asian and Minority Ethnic (BAME) communities.[2, 3] This deepening of health inequalities extends to those with serious mental illnesses, as COVID-19 restrictions and the associated 'infodemic' can exacerbate symptoms,[6] especially whilst mental health services are strained and under-resourced.[4] Despite the mounting evidence,[7] the main focus on 'COVID-19 and mental health' has been predominantly directed towards the general population.

Severe mental illnesses (SMIs) are conditions with an aspect of emotional, mental or behavioural disorder, resulting in significant functional impairment in one or more life activities.[8] Some of the most common conditions are schizophrenia; bipolar disorder; major depression and post-traumatic stress disorder. Although COVID-19 and mental health in the context of SMI has been discussed, the further impact of COVID-19 and mental health on obesity in this population has been mostly overlooked.[6] A recent briefing by Rethink Mental Illness (RMI) has identified that out of 1,434 respondents living with SMI, over half exercised less and ate less healthily; particularly concerning due to obesity's significant morbidity, mortality, and as a risk factor for severe COVID-19.[7]

The SMI population has always been more vulnerable to weight gain due to, *inter alia*, the obesogenic effects of antipsychotics, marginalised socioeconomic conditions and the interference of mental health on weight monitoring.[9] Public Health England's 'Excess weight and COVID-19' identified the disproportional effects of weight gain in individuals living with a SMI, with the prevalence of obesity being double than the average patient in adults aged 15-74.[2]

CHALLENGES FACED BY COMMUNITY-BASED SERVICE USERS

The impact of lockdown on community-based mental health treatment led to group therapy sessions and face-to-face appointments cancelled; with 45% of psychiatrists reducing their routine appointments.[10] Problematically, service users are reporting that online substitutes, such as NHS 'Attend Anywhere', may not be appropriate due to psychological reasons, such as patients reporting distress from seeing themselves on the mini screen, amongst many other additional electronic barriers.[11] This deterioration in the quality and availability of routine care is leading to a surge of acute presentations, with 43% of psychiatrists reporting that they have had an increase in urgent cases.[10] This is reflected in the finding that 79% of the 1,434 RMI respondents living with SMI reported having poorer mental health due to COVID-19 and its restrictions.[7]

A direct consequence of rising acute episodes means that for some, antipsychotic doses may need to be increased or they may require a stronger medication such as olanzapine

or clozapine, with either option resulting in further weight gain and significant cardiovascular risk. Additionally, clozapine, which is used for severe psychotic episodes and treatment-refractory schizophrenia, can predispose people to significant weight gain but also neutropenia, leading to further physical inactivity.[12]

Continuing from this, not only is there a lack of routine mental health care but also a disregard for physical health.[7, 13] Firstly, the lack of physical health checks means that antipsychotics that usually require bloodwork monitoring are often missed. This makes it even more difficult as weight monitoring is often dependent on physical checks. An NHS statistics report found that in 2019, while BMI weight checks were commonly performed for those with SMI (71.2%), lipid profiles were much less common (55.5%).[13] This is concerning as hyperlipidaemia, which is implicated in the pathogenesis of diabetes, is under diagnosed.

Service users also perceive that physical health monitoring of people with SMI during lockdown was often not valued as much as the physical monitoring of someone with a 'biological' pathology. Research has shown that only 36% of people with SMI on GP SMI physical check registers received all six elements of health checks in 2019.[13] This is supported by the Money and Mental Health (MMH) survey finding that 86% of 568 people living with mental health problems felt worried about potentially struggling to access mental health care when necessary.[14]

Alongside restrictions imposed upon routine physical and mental health care, restrictions and disruptions to previous coping mechanisms due to social isolation and social support restrictions can lead to psychologically driven weight gain. For example, in our experiences, a patient could not go to Slimming World, which resulted not only in a reduction in physical activity, but also a decline in mental health as a result of a lack of their usual social contact. This decline of mental health and loss of support network also resulted in the redevelopment of unhealthy eating habits as a coping mechanism, such as 'boredom eating'. This story is only one of many and is corroborated by the RMI survey, with the closure of gyms and pools being a critical piece in the development of obesity.[7]

For many people with SMI, food is often a maladaptive coping mechanism that can be utilised as a coping mechanism of secondary resort; something to turn to when all else fails. COVID-19 and its restrictions can induce, to varying degrees and ways; a trauma response. To those with post-traumatic stress disorder, food can often be excessively used as self-medication due to the comforting and soothing effect of post-prandial dopamine.[15] To survivors of sexual abuse, being overweight, and thus being publicly perceived as sexually undesirable, is felt as protective: a defence mechanism towards an increasingly uncertain time.[16]

Trauma is not the only factor implicated: depression and loneliness may also have a contributory role. A UCL COVID-19 social study pre-print, suggests that those with pre-existing mental health conditions were more than five times as likely to experience severe loneliness during lockdown.[17] This potentially contributes to the pathogenesis of obesity in those with SMI during lockdown, as the consumption of food to escape the awareness of boredom can lead to rapid weight gain.[18] Another pre-print identified that those with pre-existing mental health conditions were 13 times as likely to experience severe depressive symptoms during lockdown.[19] A particular concern, as some individuals with depression experience increased appetite due to aberrant interoceptive neurocircuitry,[20] and depressive inertia can also reduce physical activity[21] – both of which are probable contributory factors for increasing adiposity in the SMI population during lockdown. The bidirectionality between depression and obesity is already relatively established in medical literature.[9, 20, 22] In summary, for varying reasons, obesity can be the result of an inevitable response to the fleeting, uncertain times.

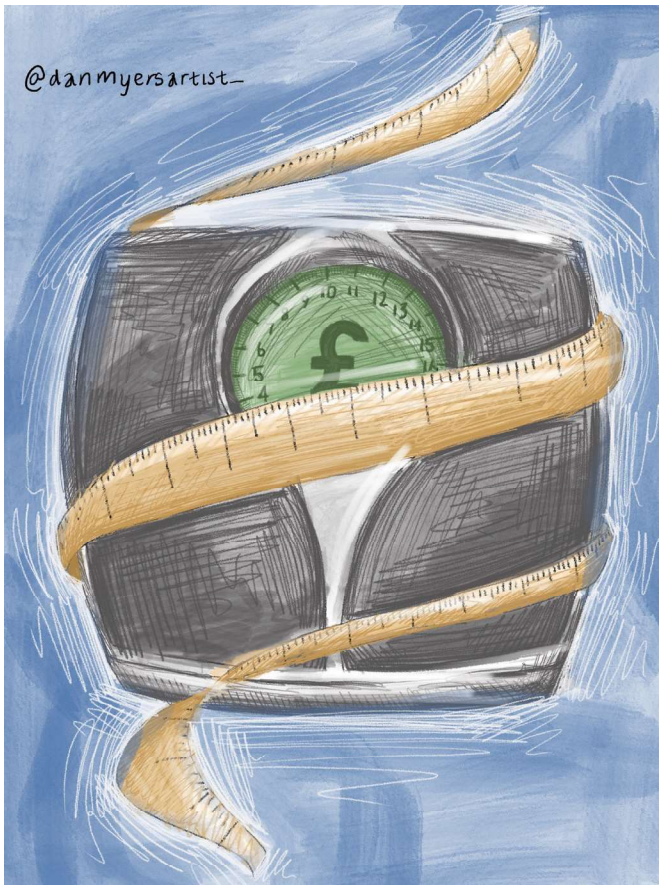
Despite the appearance of choice and focus on personal responsibility in the popular discourse of the development of obesity, during the first national lockdown people with SMI had pragmatic difficulty to access food as some were not on the vulnerability list. Additionally, there was a significant lack of confidence or self-efficacy to access food for some people with SMI: anxiety of entering larger stores leading to restricted healthy food choices at smaller stores, and some struggling to access vulnerability slots.[7] COVID-19's economic impact and resulting food insecurity forces consumption of cheaper obesogenic food, especially amidst the larger logistical disruption to the supply of fresh food.[23, 24] Only 29% of the MMH survey respondents agreed or strongly agreed that it would be easy to work from home – something which has become fundamental to financial stability and independence in the emerging socially-distant world.[14]

Furthermore, food banks have no minimum nutritional requirement and can be inadequate in providing well-rounded nutrient-dense food options, this is particularly true due to the significant increase in demand, such as the 175% increase for the Independent Food Aid Network.[25] Food banks are also affected by the wider logistical problems in fresh food availability, alongside the fact that many regular donators have now become those who require assistance due to redundancy or financial difficulties.[24] Many people with SMI and survivors who are living with SMI, report feeling criticised for 'bad health choices' whilst they are disadvantaged and struggling to survive.

DIFFICULTIES IN INPATIENT AND HOSPITAL SETTINGS

There were similar difficulties in terms of accessing healthy food for in-patient service users during the beginning of the first national lockdown. Staff members attempting to establish consistent logistical supplies of fresh healthy food were met with a myriad of barriers, such as stock unavailability. This had a significant impact for some service users, particularly those with a diagnosis of Autism Spectrum Disorders who are selective eaters.

A supermarket chain did, however, donate food in the form of chocolate Easter eggs, which although heart-warming, did not necessarily improve access to healthy food. This provides a snapshot view of the greater fundamental notion of food, especially sugary food, as comforting, but not necessarily favourable for the long-term health of service users. This becomes particularly problematic for the mental health and/or learning disabilities contexts where the concepts of informed consent and diet control are particularly tested – as many are either not currently in a capacitous situation or do not account for the long-term health consequences of food in their decision making.



Additionally, there are now more difficulties in accessing inpatient facilities and emergency psychiatric help. It is already notoriously difficult to navigate the NHS, increasingly more so for patients with hampered social support in a time of resource strain. Exacerbating this, institutional and local NHS Trust guidelines often changed frequently during COVID-19, with wards being repurposed, doctors being redeployed and COVID-triaging implemented.[26] There is also reduced psychiatric staff availability due to sickness, self-isolation, shielding and having to rely on unfamiliar bank or agency staff to cover, with some of these factors having been described in recent studies.[26, 27] Varying trusts also redeployed staff differently, with home-treatment teams usually becoming virtual in many trusts. During the first wave of the pandemic there were also significant shortages of necessary psychiatric medications, such as risperidone – a commonly prescribed atypical antipsychotic. Thus, not only are more people having acute presentations, it is also more difficult to access necessary acute care.

RECOMMENDATIONS AND CONCLUSIONS

Since the onset of COVID-19, there has been loss of parity of esteem between mental and physical health.[28] Commissioners, academics and clinicians were focused on the rapidly evolving nature of the pandemic, which arguably has led to a physical health centred approach. During and since the end of the first national lockdown, a body of evidence highlighting COVID-19 and the subsequent lockdown's impact on mental health has emerged.[4, 5, 28] Thus, it is critical that the myth that 'COVID-19 is a physical health crisis' should be dispelled as this biomedical view ignores the simultaneous mental health pandemic: amongst the general population and those with pre-existing SMI.

Those with pre-existing mental health conditions are impacted greatly by COVID-19 and its restrictions:[6] without contracting COVID-19 they are significantly impacted socioeconomically and emotionally; are at great physical risk if they are infected; and long-term sequelae such as dyspnoea can further impact mental health. It is important that parity of esteem is therefore re-established between physical and mental health.

In summary, both mental and physical health care that those with SMI have received during the COVID-19 pandemic has been insufficient for many. Obesity is a multifaceted issue whose cause and effect surpasses the fallacious cartesian dualism-divide; especially as excessive food consumption is often driven by maladaptive psychological coping mechanisms. It is a product of, *inter alia*, obesogenic medication, inactivity, psychological eating, mental health deterioration and socioeconomic issues. Though obesity is a disease, perhaps it is also a symptom of inadequate healthcare provision, of entrenched social exclusion, and of complex intersectional oppression.

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(a full list available on request)