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LETTER TO THE EDITOR

Reply: Why the threat of psychosocial reductionism to patients in psychiatry and medicine is rather ignored

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Neuropsychiatry Research and Education Group: Immunopsychiatry and Organic Neuropsychiatry Theme

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I thank Dr Molmans for his thoughtful and heartfelt response to my essay. I also have personal and family experience of disabling symptoms following COVID and am deeply empathetic towards the suffering that these illnesses cause. I note our numerous points of agreement: that we share enthusiasm for immunological research in psychiatry is particularly heartening. I hope I can address the points made by Dr Molmans in his letter.

By highlighting ME/CFS and long Covid (LC) as examples of debates in which inflammatory and psychological narratives have been acrimoniously and unhelpfully dichotomised, I

intended to draw attention to the nature of the conversation, rather than make a judgement about the nature of the illnesses concerned. As regards the suggestion that in drawing attention to this dynamic I have implicitly conflated psychiatric with more broadly somatic illnesses, this was not my intention either: I would not describe these presentations as ‘psychiatric’ on any commonsense or helpful understanding of that word (this is different, of course, to saying there is no role for psychiatrists in the care of some of these patients). Having had grant applications proposing immunological research into LC rejected early in the pandemic, I share many of Dr Molmans’ frustrations about funding for this devastating disorder: I still wonder if much suffering could have been averted with a greater willingness to look beyond acute Covid and to fund ‘moonshot’ LC research in 2020 and 2021. The article was not focused on ME/CFS or LC, however. My main concern was to highlight the realities of a perspective within medicine and more widely - about the existence of which I think we are in agreement - and the harms this is causing to patients.

As I understand it, Dr Molmans’ main argument runs as follows:

- 1) Advocacy of a biopsychosocial perspective, particularly by psychiatrists, is a thinly-veiled attempt to force psychosocial reductionism onto patients, often under the guise of ‘humility’.
- 2) This perspective has robbed patients of potentially helpful research into biomedical (including inflammatory) causes for many disorders, including post-infectious syndromes.
- 3) The corrective to this is not to advocate for a more balanced or holistic approach, but to argue that biological approaches are due the time, funding and institutional recognition that they require.

I should first be clear that, as regards my own career and research, my major focus is on immunological mechanisms and potential treatment strategies across a range of disorders. I have proposed diagnostic criteria for the recognition of autoimmune causes of psychosis that I believe have led to increased recognition and earlier immunotherapy for many patients worldwide¹. Furthermore, these criteria were directed at clinicians working in mental health settings, precisely the arena where under-recognition and delayed diagnosis of these disorders causes most harm. I have also published extensive mechanistic and biomarker research aimed

at identifying possible immune and related neurobiological aetiologies in a variety of disorders; in addition to psychiatric disorders this includes post-COVID conditions². I helped set up and co-led the UK's first neurology and neuropsychiatry-focused long COVID clinic as well as an autoimmune neuropsychiatry clinic: in both of these the guiding principle was to provide for simultaneous assessment by a neurologist with neuroimmunology expertise *and* a neuropsychiatrist, thereby minimising the likelihood of any one perspective dominating the formulation. Finally, I have argued extensively against a variety of epistemic injustice in which the attributional perspectives of patients appears to be habitually ignored by (some) clinicians. For example, focusing on the attribution of systemic and neuropsychiatric symptoms in systemic autoimmune rheumatic disorders³, we have outlined how better incorporation of patient perspectives might afford real mechanistic (biomedical) insights (e.g. close attention to patients' reports of the covariation of symptoms with other systemic symptoms, or of improvement of these symptoms with immunotherapies, may strongly support a primarily inflammatory attribution).

As regards specifically immune and inflammatory mechanisms, as stated in the essay, I think we need *more* research on inflammatory mechanisms, not less. I admit to feeling a little perplexed as to how anyone might come away from reading the essay with the understanding that it was advocating for the opposite. I am also struck by the implication that my essay could be read as supportive of reductive psychosocial explanations. Nothing could be further from the truth – indeed in the essay the term ‘biopsychosocial’ is never used without the prefix ‘bio’ (incidentally, Dr Molmans appears to extract a clear binary - biomedical vs psychosocial - from the tripartite structure inherent in the term ‘biopsychosocial’ which rather fails to do justice to the very many divergences and debates between ‘psychological’ versus ‘social’ perspectives, debates which in the past have assumed a comparatively confrontational tone). But I agree with Dr Molmans that ‘one does not need to enumerate’ the historical examples where psychiatry has overstepped its mark and caused suffering by adopting an overly reductionist psychological or social approach - that is why I didn't do so.

Iatrogenic and sociocultural harms arising as a result of ‘psychosocial reductionism’ have already been the subject of decades of research and study. Many examples are familiar to students of medicine: the resistance to the infectious theory of gastric ulcers, the

psychologisation of multiple sclerosis and epilepsy, the attribution of autism to 'refrigerator mothers', the dismissal of the suffering of women with endometriosis, even the narrow framing of what we now call functional neurological disorder as 'conversion disorder' or as 'psychogenic'. My own work in rheumatic disorders has identified how perceptions of inappropriate psychologisation can cause real harms. Clinically, I am all too familiar with cases where autoimmune encephalitis was misdiagnosed as a primary psychiatric disorder such as schizophrenia, anxiety attacks or even 'psychogenic seizures': and in many studies misdiagnosis has been shown to predict poorer outcomes.

But whereas much ink has already been spilled in service of exposing these inequities, I do not feel that inflammatory reductionism has been similarly put under the spotlight, or named for what it is: an equally dangerous reductionism that is causing real harm to patients via a proliferation of unevidenced 'treatments'^{4,5}. For me, a sense of urgency became apparent when enough patients came to my clinic enquiring about self-funded trials of (increasingly easily procurable) treatments like long-term antibiotics, stem cell transplants or B-cell depletion in the absence of any evidence of inflammation. To some extent the indications should not matter here (although they are shocking e.g. autism spectrum disorder): what is most striking is that the providers have coalesced into an ecosystem with a shared language of hyperbolic claims, a dysfunctional and pantomimed approach to evidencing these claims, and an antagonistic, frequently conspiratorial stance towards healthcare institutions and/or individuals that do not share their values; all of which amounts to a chilling disregard for patient safety.

Dr Molmans and I may disagree on another issue: his suggestion that biomedical approaches are uniformly deprioritised is inconsistent with the funding landscape or, indeed, the bibliometrics of psychiatric and medical research (this appears even to be true for post-COVID research, at least more recently)^{6,7}. This is not a situation that I object to, but one which Dr Molmans fails to recognise. More generally I am probably in agreement with Dr Molmans that, in some cases, the advocating of a biopsychosocial approach can contain an implicit prioritisation of one or two of these three facets over others - although there is good evidence that this can work harmfully in any direction, including in the direction of 'overmedicalisation'⁸. But then he states: "psychiatry and medicine are rather caught overestimating their humility for the mind, than underestimating what they are supposed to

know best: the complexities of the body." I am not sure what to make of this characterisation of medicine and/or psychiatry, except to wonder if it is captured by precisely the kind of dichotomisation that I aimed to highlight. To characterise the dualistic 'balance' between biomedical and psychosocial approaches as some kind of zero-sum game is simply to repeat the mistakes of the past, all while failing to appreciate the vast amounts of modern research into neuroimmune interactions, psychoneuroimmunology, immunopsychiatry and so on, research that I believe does not represent a niche ragbag of biomedical curiosity but rather contains insights that can – and will – shape all of our wider disciplines profoundly. Like Dr Molmans, I do in fact have deep concerns about the habitual use of the term 'biopsychosocial', with all its narrow implications about the structure of explanation and causation. However, irrespective of Dr Molmans' clear disdain for another word, I consider that a future medicine *does need to be truly holistic*. To be clear, holism should not simply be understood as a commitment to a greater awareness of the influence and interaction of three separable 'kinds of cause' or 'levels of explanation'. Rather, a mature holism in medicine will require a wholesale shift, instead viewing disease processes as dynamical, complex interactions across scales, each of which can be framed as having genuine (*although not necessarily, at all times, equal*) causal efficacy, rather than adhering to the kind of rigidly reductionist and frequently mutually exclusive frameworks long since abandoned by many of the biological sciences^{9,10}.

Dr Molmans' dismissal of holism as an approach could be understood as nihilistic. In a world where integration, crosstalk, and nuance are increasingly hard to find, a rejection of holism on the grounds that it has in the past been misused feels a little like giving up, and also unscientific in its approach. Moreover, as I have tried to emphasise: in all human affairs including science, when integration and nuance are left behind - when the centre cannot hold - intolerance and fundamentalisms take root; and I consider both inflammatory and psychological reductionism, when they occur, to be such fundamentalisms.

To turn to clinical realities for a moment: the frequency with which I encounter inflammatory reductionist attitudes from patients and clinicians is still relatively low, and I am always struck by the thoughtfulness and openness of the patients and families I meet clinically. I am sure that the dichotomous online debates I have highlighted do not represent the current breadth of clinical or patient opinions. But I am also certain that they have already begun to have a

corrosive effect, and are tilting the balance towards a more widespread polarisation of attitudes. There are certainly important conversations to be had about how a forward-looking health system might approach the use of treatments that do not meet the highest standards of evidence-based medicine but for which there *is* nonetheless emerging evidence. I regularly hear frustration from patients who feel that they have been denied the opportunity of a trial of immunomodulation even in the severest cases when *all else has failed*, and it is clear that the differential strictures of healthcare regulation in different countries might approach these cases quite differently. In my opinion, outside of a randomised clinical trial it is wrong to consider these treatments in any case except those in which all evidenced treatments have been tried or have been rejected on rational, sensible grounds (rather than ideological disinclination); and *even in these cases* there must be some degree of preclinical evidence in the individual case (and not simply ‘the literature’) suggestive of CNS inflammation. The existence of supportive *preclinical studies* on the disease in question (no matter how numerous), or indeed of charismatic clinicians with sizeable online followings advocating a particular immune-oriented treatment, is not sufficient grounds to disregard a lack of *supportive clinical and preclinical evidence*, even in these cases.

I am sure Dr Molmans will agree that as doctors we must still work to the standard of ‘*primum non nocere*’: first do no harm (a phrase I am well aware is considered in some circles to be holding back medical progress). This means that we must first continue to advocate for better research funding, as I know Dr Molmans has tirelessly done. Then, when there is equipoise, we do the research and we do it well; finally, we work together to call out those healthcare professionals profiting from unevidenced and dangerous treatments, and perhaps we also try our best to overcome the kinds of ideological factionalism and dangerous reductionisms that - in all their many forms - have caused so much harm to our patients.

Data availability

Data availability is not applicable to this article as no new data were created or analysed in this study.

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Competing interests

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