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Letter to the Editor

Response to the commentaries on 'What is a mental/psychiatric disorder?'

We are grateful to First & Wakefield (2010), Broome & Bortolotti (2010), and Verhoeff & Glas (2010) for their careful reading of our article, 'What is a mental/psychiatric disorder: from DSM-IV to DSM-V' (Stein *et al*. 2010).

First & Wakefield address each of the criteria we discussed, agreeing with some of the changes, but making several suggestions. We discuss each of these in turn:

First, they argue for inclusion of the phrase 'or substantial increased risk of future distress or disability'. They agree with the importance of not confusing risk of disorder with disorder itself but argue that increased risks that are consequences of internal dysfunction can be considered disorders (analogous to persistently elevated blood pressure or an early-stage malignancy). They cite the exemplar of pre-psychotic syndrome, indicating their concerns about the high potential of false positives, but also noting that if an objective laboratory marker that was a manifestation of a current dysfunction that is not yet causing distress or disability were to become available and reliably predicted the development of a psychotic disorder, this could be a legitimate category of disorder.

There are a number of conceptual issues at play here. A first issue is that at times in medicine it is possible to diagnose a disorder before it becomes symptomatic. Thus both lung tumours and brain tumours may be found on radiological investigation before they manifest clinically. Diagnoses of phenylketonuria or Huntington's disease can be now be made long before their behavioural sequelae emerge, and the list of such conditions is likely to expand in the future. However, given that psychiatric diagnoses are invariably made on the basis of clinical symptoms rather than diagnostic investigations, the construct of non-symptomatic psychiatric disorders is rarely relevant. On the other hand, introducing the possibility of disorder defined by risk does create the potential for false-positive diagnosis, and the qualification suggested by First & Wakefield – that 'increased risk of distress or disability is not in itself a disorder unless due to a dysfunction' – is difficult to determine in the absence of reliable and valid biomarkers, which again are rare in psychiatry.

Indeed, a second issue at play is the extent to which risk factors which are not disorders should be a focus of psychiatric assessment and treatment. As First & Wakefield emphasize in their introduction, psychiatry can use its knowledge to relieve the symptoms of normal distress, and we noted in our editorial the advantages of the phrase 'and health related problems' in the title of the ICD-10 classification. Psychiatry can also use its knowledge to address risk factors for mental/psychiatric disorders. As in medicine, risk factors should be carefully studied, and where appropriate incorporated into practice. Thus, the more robustly a particular phenotype or putative biomarker predicts a disorder, and is in line with our understanding of the relevant psychobiology (e.g. phenylketonuria and subsequent intellectual disability, amyloid imaging and subsequent Alzheimer's disorder), the more likely is the field to advocate harm reduction through early detection of such risk factors and appropriate intervention. However, once again, we would emphasize the danger of false positives and the relative lack of reliable and valid biomarkers in psychiatric practice, and so caution against low thresholds for proposing mental/psychiatric conditions on the basis of predictive risk.

Second, First & Wakefield argue for replacing the phrase 'culturally sanctioned response to a particular event' with the phrase, 'culturally sanctioned behaviour or belief'. They do not disagree with our proposal to extend the relevant criterion to include expectable responses to common stressors and losses or our increased emphasis on consideration of cultural context, but they argue that the DSM-IV language of 'culturally sanctioned response to a particular event' limits consideration of cultural context to responses to events rather than allowing a more general consideration of whether a particular behaviour (e.g. trance states in religious rituals) is culturally sanctioned. Our worry about extending the language here to include all culturally sanctioned behaviours or beliefs is that some culturally sanctioned behaviours or beliefs can potentially be disorders (e.g. communication with departed ancestors may be culturally acceptable, or may represent a symptom of psychosis). The possible advantage of the phrase 'response to a particular event' is that it places the emphasis, when deciding whether or not a particular phenomenon is a disorder or not, on the relevant cultural context. Similarly, the first part of this criterion emphasizes the concept of 'expectable

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responses to common stressors and losses', making explicit that clinicians should consider the psychosocial context of phenomena before making a judgement about whether or not they represent a disorder.

Third, First & Wakefield note their agreement that the term 'psychobiological' better captures the complexity of the interaction between biological and psychological factors than is often the case in mental/psychiatric disorders. However, they emphasize that it is premature to assume that every disorder must involve a biological dysfunction, noting as an analogy that not every software malfunction is a hardware malfunction. It is precisely this kind of analogy, however, that we would like to avoid. There is a long tradition in philosophy of conceptualizing the mind as somehow disembodied (Descartes' view of the mind as immaterial comes to mind), or as software running on the brain's hardware (the more modern functionalist position). However, from a psychiatric perspective, is it clear that these views of the relationship between mind and body are deeply misleading; the mind is embodied, and the mind-brain are inextricably intertwined. For precisely the same reason, we do not intend to imply with the phrase 'psychobiological dysfunction' that every psychiatric disorder involves dysfunction solely at the level of neurocircuitry or neurochemistry. First & Wakefield suggest moving the dysfunction criteria earlier in the definition, and we agree that this may serve to increase clarity.

Fourth, First & Wakefield argue that given the historical importance of the issue concerning when is it appropriate to consider 'conflicts with society' as disorders, it would be advantageous to retain the DSM-IV language ('e.g. political, religious, or sexual'). They also add back other DSM-IV wording, including the phrase 'unless the deviance or conflict is a symptom of a dysfunction in the individual'. We agree that some detail about the nature of the conflicts with society may be useful for the reader, although we would also note that given the importance of keeping the core definition succinct, the DSM-V text could further elaborate on each element of the definition. We feel that our suggested phrase 'primarily a result of social deviance or conflicts with society' is relevant in emphasizing that deviance/conflict can be multifactorial, so that the burden of proof is on establishing that dysfunction is primary, in order to make the determination of disorder.

Fifth, First & Wakefield note a concern that the parts of the definition pertaining to diagnostic validity and clinical utility confuse the definition of a mental disorder with criteria for adding or deleting disorders from the nomenclature. They argue that validity and utility may usefully inform DSM-V decision-making but are not relevant to the decision about whether a condition is a mental disorder *versus* some other kind of problem. We agree that it is relevant to distinguish between the definition of a mental disorder and considerations for adding/deleting disorders, which was part of our reason for listing items F to J under the heading of 'additional considerations' (not altogether dissimilar, perhaps, from First & Wakefield's suggestion of a codicil). In addition, however, we would emphasize that there is a fuzzy boundary between the definition of a mental disorder and considerations for adding or deleting disorders from the nomenclature; it is precisely because direct identification of dysfunction is often lacking in psychiatry (as First & Wakefield note in their suggested codicil) that arguments about validity and utility are relevant to determining whether an entity is a disorder and should be included in the nosology.

Broome & Bortolotti focus on two issues; the use of the term 'mental', and the idea of psychiatric disorders being 'in an individual'.

They note that the term 'mental' does not commit people who use it to dualism, that the term 'mental' is useful in psychiatric research as denoting events or states characterized by intentionality, and that hybrid phrases such as mental/psychiatric or body/mind are unwieldy. They argue that there is nothing objectionable to the term 'psychiatric disorder', but suggest that the term 'psychological' may be useful when describing certain features of a disorder, avoiding some potential challenges of circularity or triviality generated by the term 'psychiatric' in some contexts. We agree with many of Broome & Bortolotti's points. Nevertheless, we would emphasize that the term 'mental disorder' is typically contrasted with that of 'physical disorder', and this contrast may subsequently be used to support a range of erroneous conclusions that downgrade the importance or seriousness of psychiatric illness (e.g. that physical disorders are 'real' entities, while mental disorders are 'just in someone's mind'). In contrast, some of us feel that the term 'psychiatric disorder' is preferable just because it does not connote that these conditions are purely 'mental' and that the line between 'psychiatric disorder' and other 'medical disorders' is not a sharp one. Because there are reasonable arguments both in favour of and against both 'mental' and 'psychiatric', we have taken the compromise position of suggesting use of both terms. We have no objection to using the term 'psychological' to describe certain features of mental/psychiatric disorders, although we suggested the term 'psychobiological' to qualify the dysfunction characteristic of these conditions, for the reasons noted earlier.

Broome & Bortolotti go on to suggest different interpretations of the phrase that mental/psychiatric

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disorders occur 'in an individual', including the possibilities that these disorders have: (1) a particular locus (they occur within and affect individuals independent of the existence of other individuals or the environment) or (2) a particular causation (the aetiology lies in the individual rather than in the environment). As we noted, our discussion arose in the context of some suggestions in the literature that dysfunction in relationships should be classified as disorders. We noted that general medical disorders typically occur in individuals, and suggested that it would therefore be contentious to extend the construct of disorder to include relationships. By locating disorders in individuals, we did not mean to imply that mental/psychiatric disorders can or should be conceptualized independently of social context (on the contrary, our suggested phrase 'expectable responses to common stressors or losses' explicitly acknowledges the importance of social context). Nor, as Broome & Bortolotti correctly infer, did we mean to imply that either medical or mental/psychiatric disorders do not have social or environmental causes (indeed, we specifically concluded that our definition of disorder took a middle course between certain philosophical debates on psychiatric nosology, such as the internalist *versus* externalist approaches).

Verhoeff & Glas welcome the suggested phrase emphasizing that mental/psychiatric disorders are not 'expectable responses to common stressors and losses' but are concerned about the criterion on dysfunction. They differentiate underlying (brain/psychological) dysfunction and dysfunction seen at a clinical level, noting that for most psychiatric disorders we do not have an adequate conceptualization of underlying dysfunction, and they argue that definitions of disorder in terms of clinical dysfunction are circular.

Their first criticism is that we insufficiently differentiated underlying dysfunction and dysfunction seen at a clinical level. In our view, in item D of our proposed definition we in fact indicated that mental/psychiatric disorders are characterized by underlying (i.e. psychobiological) dysfunction. In contrast, item B of our proposed definition reflects at least some of the types of dysfunction that Verhoeff & Glas describe as occurring at a clinical level. Thus our definition does attempt to differentiate underlying dysfunction and dysfunction seen at a clinical level.

Their second criticism is that underlying dysfunction is currently an assumption. We agree with this point insofar as direct evidence of underlying dysfunction (at least narrowly defined as a well-established pathophysiology) is often absent in psychiatry [although such absence is not universal (see above), and furthermore, many hints exist in the literature about the neuropsychological, neuroanatomical, and molecular correlates of psychiatric illness]. In the absence of such direct evidence, the clinician must necessarily draw on a range of other observations. While it is true that some of this reasoning may be circular (distress and disability are taken to point to dysfunction), it does not mean that judgements about the presence of disorder are simply invalid (a preponderance of observations, for example, suggest that schizophrenia is better conceptualized as a mental/psychiatric disorder with underlying dysfunction, than as a sinful or eccentric behaviour).

While we have some sympathy for Verhoeff & Glas' recommendation that the criterion describing dysfunction be moved to the section on 'other considerations', we would argue that the concept of dysfunction, although difficult to specify precisely for many disorders, is key in differentiating mental/psychiatric disorders from both normality, and other kinds of non-normative behaviour. Indeed, like Verhoeff & Glas, we hold that judgements about clinical-level dysfunction entail value judgements, and that recognition of such values does not preclude objective conceptual advancement and refinement. We also agree with them that establishing a conceptual framework for addressing the relevant issues in making judgements about dysfunction is key for the field, and hope that in some ways these commentaries and our response, contributes to that effort.

Declaration of Interest

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