The imperative in PTSD: integrating biology and clinical practice

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Post-traumatic stress disorder (PTSD) is the most common psychiatric disorder following major trauma, reportedly present in 0% and 100% of those exposed. Although only recently defined, it has existed under different names for hundreds of years, occurring in all cultures and in all centuries,[1] being described in literary works as diverse as the Iliad[2] and Samuel Pepy's diary detailing the plague and the Great Fire of London,[3] in conflicts such as the American Civil War[4] and the WWI. It is found also among peacekeepers in troubled spots across Europe and the Middle East. The types of trauma that induce it are diverse and include torture, road traffic accidents, certain type of hospitalisation such as bone marrow transplantation and witnessing others being injured.

Neurobiology

There is a raft of neurobiological findings that suggest the validity of PTSD. Abnormalities to the amygdala, the hippocampus, the lateral septum and the medial prefrontal cortex have been described in animal models. The role of noradrenaline in inducing intrusive memories and flashbacks has been highlighted in combat veterans[5] and among women with child-abuse related PTSD.[6] Dysregulation of the hypothalamic-pituitary-adrenal axis in those with PTSD results in low urinary cortisol and raised cerebro-spinal corticoprophin releasing factor. Studies of information processing are also assisting in identifying the cognitive processes involved in storing and integrating traumatic memories and PTSD has been characterised as a primary disturbance of memory function.[7]

Controversy

Although PTSD is recognised in the current classifications of psychiatric disorder, it continues to attract controversy.[8] Among the issues around which there is debate is the breadth of the criteria in DSM-IV, such that hearing about a traumatic event could lead to this condition. Moreover, functional incapacity is not mandatory since the criteria specify that the disturbance must cause either "clinically significant distress or impairment in social, occupational or other important areas of functioning". Recent research places most emphasis on the person's subjective response to the event rather than on the absolute magnitude or severity of the stressor itself – hence, even relatively mild events can provoke PTSD. Thus, this diagnosis neither distinguishes between the effects of torture nor the consequences of being in a stationery car hit from behind. The huge diversity in prevalence also raises questions about both the diagnostic criteria and/or the methods used to evaluate symptoms in at-risk populations suggesting either excessively broad criteria or laxity in their application in epidemiological research.

However, there are other areas are of significant concern about the diagnosis of PTSD and these will be considered in greater detail.

Recall bias

PTSD is unique among psychiatric disorders in that a traumatic event is required to make the diagnosis – in this respect it differs from all others where diagnosis is based on symptoms not aetiology. Yet there is evidence for the instability of recall for traumatic events, particularly those of a military nature.

A study involving veterans of Desert Storm identified 88% of subjects as changing their responses over a two year period: 70% reported events at two years not reported earlier and in 46% of subjects the reporting was reversed.[9] A recent study of British soldiers involved in the first Gulf war and of peacekeepers in Bosnia demonstrated that newly endorsed items (no/yes) were more common than no longer endorsed items (yes/no) for both cohorts.[10] The most problematic were those items concerning recall of depleted uranium stores, exposure to chemical resistant paint and solvents/pesticides on clothes, whereas recall of exposure to smoke from oil fires and hearing Scuds detonate were reliably recalled.

The authors found that the endorsement of new items was significantly associated with poor health perception but not with changes in post-traumatic stress symptoms. They concluded that the considerable media attention to the possible health hazards of the Gulf war and to reports of cancer among some peacekeepers in Bosnia might have been incorporated into the participant's perception of their war experiences.

Culturally defined symptoms

If the recall of the stressors themselves is problematic, there are also difficulties attaching to the symptoms that are considered central to the diagnosis.

The presence of flashbacks is considered one of the core symptoms of PTSD. A recent study of UK servicemen who had been awarded war pensions for post-combat disorders onwards from the Boer War[11] examined the prevalence of flashbacks in a number of subsequent military operations. It

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found that flashbacks were significantly more common in the veterans of the 1991 Persian Gulf War that in those who had fought in the Boer War, WWI and WWII.

The authors conclude that flashbacks represent culturally defined symptoms linked to the ready access to television sets and to the frequency with which the public are exposed to flashback technique in modern cinematography today. The cultural nature of PTSD is also echoed by others:[12]

"The disorder is not timeless...Rather it is glued together by the practices, technologies and narratives with which it is diagnosed, studied, treated and represented and by the various interests, institutions and moral arguments that mobilised these efforts and resources".

This is not to dismiss or invalidate the suffering of those exposed to major trauma, but points to the effect that ascribing a diagnostic label has on our attributions, expectations and interventions when such suffering occurs.

Diagnostic overlap

A further problem associated with the diagnosis of PTSD is the non-specificity of the symptoms. Some of the symptoms such as poor concentration, depression and irritability can occur in most psychiatric disorders. Even many of the primary symptoms such as avoidance and hyper-vigilance are found in disorders such as phobias and generalised anxiety also.

In addition to flashbacks, recurrent intrusive memories are among the key symptoms required by DSM-IV to make the diagnosis. However some investigators[13] have shown that neither the quality nor quantity of these unpleasant memories distinguished PTSD (triggered by personal illness or assault) from major depression (triggered by family death or illness and interpersonal events) raising the prospect of even symptoms that were considered specific no longer fulfill this criterion.

Malingering

PTSD is a diagnosis that every psychiatrist is confronted with in clinical practice and we are required to legitimise it when we have to comment on its occurrence, severity and magnitude of impairment for our courts. Believing our patients and trusting their integrity is central to forming a positive therapeutic relationship with them and some studies suggest that exaggeration of symptoms is unlikely.[14]

Yet, clinical experience as well as empirical research[15] suggests that at least some patients may be fabricating or exaggerating their symptoms for financial gain.[16] The ready availability of descriptions of PTSD on the internet and in the media coupled with the ease with which the symptoms can be guessed by naïve subjects[17] further contribute to this possibility.

Conclusion

PTSD is a diagnosis that has always attracted its share of controversy and recent research continues to challenge our ready acceptance of it as a valid entity. A diagnosis whose metier is exposure to a stressful event, is obfuscated by the knowledge that memory for these events is malleable and influenced by their salience in the mind of the public at the time of assessment. The absence of specificity of many of the symptoms and the possibility and ease of malingering add further layers of uncertainty to this diagnosis.

Whilst these may not ultimately invalidate the concept of PTSD they do for the moment raise questions about how it is defined and conceptualised in the current classifications. Advances in psychobiological research and in neuro-imaging could greatly enhance our understanding of this disorder and assist in confirming or refuting its validity. The imperative is now to marry biology with clinical practice so that those with this disorder can be accurately distinguished from those who malinger PTSD.

If this does not happen PTSD may join such once fashionable diagnoses as neurasthenia and be consigned to the archives of psychiatric history as one of the over-used and exaggerated labels of 20th century practice.

Declaration of Interest: None.

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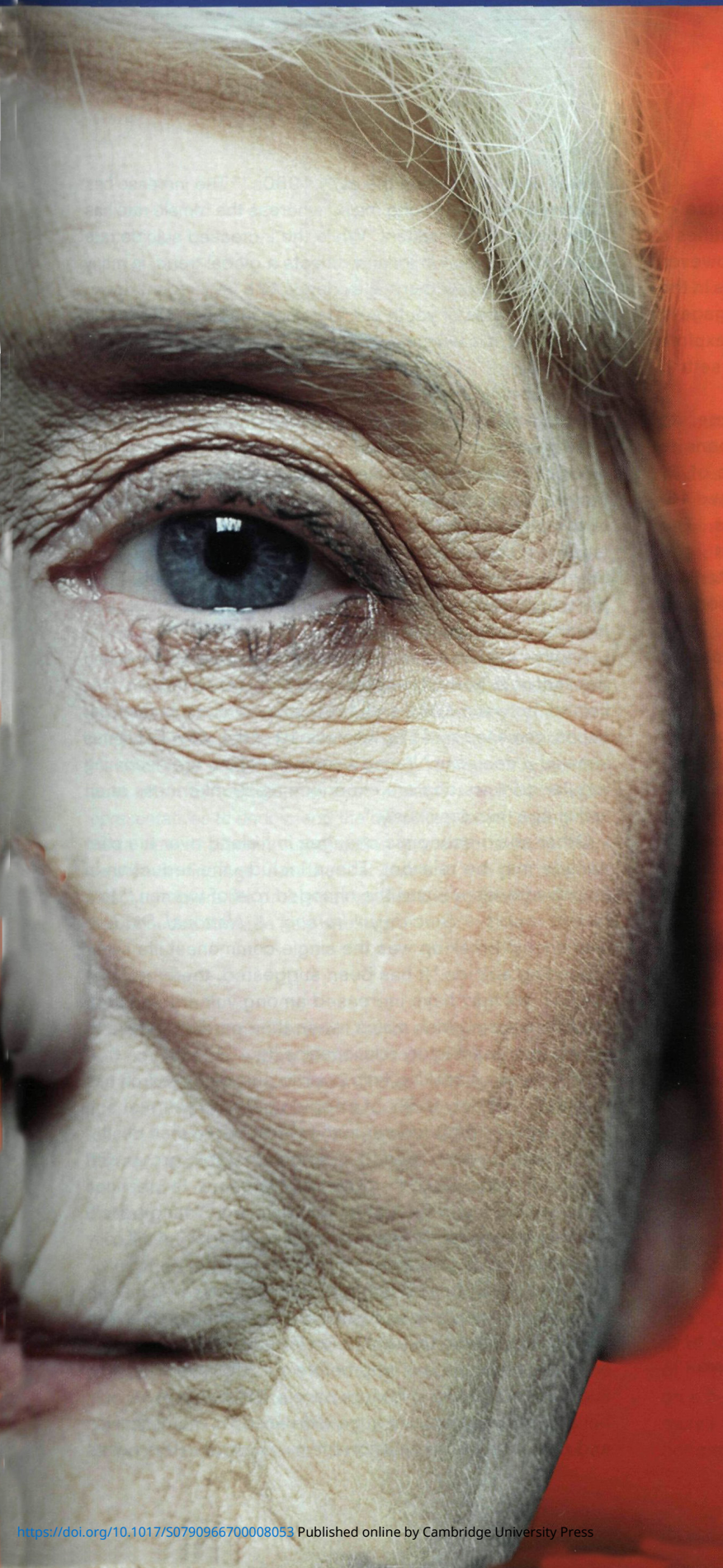

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