Something old, something new: disorders specifically associated with stress in the ICD 11th revision

Henna Haravuori, Mauri Marttunen

Abstract

Classification of mental and behavioural disorders in World Health Organization's International Classification of Diseases (ICD) is presently under revision. There is a proposal for a class of *Disorders specifically associated with stress* that includes, for example, post-traumatic stress disorder (PTSD) with revised criteria. There will be new diagnoses of complex PTSD and prolonged grief disorder. In this article we review main post-traumatic disorders as they are proposed to be in the forthcoming ICD-11. There is some but limited literature on how the revision will affect epidemiology and clinical picture of the existing diagnoses. The introduction of complex PTSD and prolonged grief disorder diagnoses facilitates recognition of their specific treatment needs.

Introduction

The 11th version of the International Classification of Diseases (ICD-11) is due by 2018. With mental and behavioural disorders the focus has been on clinical utility in the diagnostic criteria (1). Implementing a simple and limited set of symptoms should facilitate identification and treatment of mental disorders by primary care or front-line health workers globally.

R*eaction to severe stress and adjustment disorders* class in ICD-10 has included disorders of acute stress reaction (ASR, F43.0), post-traumatic stress disorder (PTSD, F43.1), seven subtypes of adjustment disorders (AD, F43.2), and other or unspecified reactions to severe stress (F43.8, F43.9) (2). ICD-11 aims to integrate relevant syndromes into a class of *Disorders specifically associated with stress* (3). The

proposed class would include ASR, PTSD and AD, as well as complex PTSD, which is a modification of enduring personality change after traumatic experiences in ICD-10 (F62.0), newcomer prolonged grief disorder, and childhood reactive attachment disorder (F94.1) and disinhibited social engagement disorder (F94.2).

Overview of the post-traumatic conditions in ICD-11

Acute stress reaction

Acute stress reaction (ASR) should be considered as a transient normative reaction in relation to the severity of the stressor that was extremely threatening or horrific (3). The symptoms are highly variable and do not meet criteria of any specific mental disorder. The proposed symptom list includes: being in a daze, confusion, sadness, anxiety, anger, despair, overactivity, inactivity, social withdrawal or stupor; and autonomic signs of anxiety: tachycardia, sweating or flushing. The onset of the symptoms is within hours to days after the stressful experience yet symptoms should begin to subside within a week. Functional recovery should be attained within about four weeks.

Post-traumatic stress disorder

The proposed ICD-11 criteria for post-traumatic stress disorder (PTSD) include exposure to a threatening or horrific event or series of events followed by symptoms from each of the three core elements: re-experiencing of the traumatic event(s) in the present day with emotions of fear or horror; avoidance of traumatic reminders; sense of a current threat manifested as hypervigilance and/or an exaggerated startle response (Table 1) (3, 4). Symptoms should last for several weeks. Different from the ICD-10, functional impairment is also required (2, 4).

PTSD symptom factor structure. There are three symptom groups in the proposed ICD-11 PTSD (re-experiencing, avoidance and hyperarousal), although the latent structure of the symptoms has not been scrutinized (5). Earlier studies indicate a very high correlation between re-experiencing and avoidance symptoms (6, 7). Forbes et al. (5) studied latent factor models of the ICD-11 PTSD: a three-factor model, where one out of two symptoms for each factor is required for the diagnosis; a two-factor model that combines re-experiencing and avoidance symptoms, where two out of four of these

symptoms are required for the diagnosis; and finally a one-factor model. Confirmatory factor analysis showed that the two-factor model had at least an equivalent fit with the three-factor model, and as a more parsimonious model, should be preferred (5). Tay et al. (8) and Hansen et al. (9) have performed confirmatory factor analyses on the ICD-11 three-factor model that showed a good model fit, although neither study analysed alternative factor models. In a study with elderly victims of childhood trauma, a one-factor model provided the best fit for the long-lasting symptomatology (10). In our own study in a sample of adolescents and young adults and 16 months follow-up after traumatic experience, the two-factor solution of PTSD was supported (11).

Complex post-traumatic stress disorder

It has been proposed that ICD-11 would include a complex PTSD diagnosis with features of affect dysregulation, negative self-concept and interpersonal problems in addition to fulfilling regular PTSD criteria (12). Several studies are now arguing for this separate and devastating form of post-traumatic syndrome (13-17), although there is also critical discussion for not seeing a separate diagnosis necessary (18).

It is thought that complex PTSD develops after exposure to an event or series of events of an extreme and prolonged or repetitive nature that is experienced as extremely threatening or horrific and from which escape is difficult or impossible (e.g. prolonged interpersonal violence, repeated childhood sexual or physical abuse). As said, the core symptoms of PTSD should be present and all diagnostic requirements for PTSD should be met at some point during the course of the disorder. In addition, at least one symptom from each three classes is present: severe and pervasive problems in affect regulation; persistent beliefs about oneself as diminished, defeated or worthless, accompanied by deep and pervasive feelings of shame, guilt or failure related to the stressor; and persistent difficulties in sustaining relationships and in feeling close to others (Table 1). The disturbance is persistent in nature and causes significant and pervasive impairment in important areas of functioning.

Interestingly, findings from the complex PTSD latent factor structure studies imply that complex PTSD is distinguishable from borderline personality disorder (14) although comorbidity should also be expected.

Table 1. Overview of the diagnostic criteria for PTSD in ICD-10 and ICD-11, and for the new complex PTSD in ICD-11.

	ICD-10 PTSD	ICD-11 PTSD	ICD-11 complex PTSD
Stressor criterion Exposure to a traumatic event	X	X	usually extreme, prolonged, cumulative or complex
Re-experiencing	1/4	1/2	1/2
Distressing recollections	X		
Distressing dreams, nightmares	X	X	X
Flashbacks	X	X	X
Psychological reactivity	X		
Avoidance	1/2	1/2	1/2
Avoiding internal reminders, thoughts	X	X	X
Avoiding external reminders, people, places, activities	X	X	X
Amnesia or Hyperarousal	1/1 or 2/5	1/2	1/2
Specific amnesia	X		
Difficulty sleeping	X		
Irritable or aggressive behaviours	X		
Difficulty concentrating	X		
Hypervigilance	X	X	X
Exaggerated startle response	X	X	X
Severe and pervasive affect dysregulation			at least one symptom
Heightened emotional reactivity, temper outbursts, easily hurt feelings, excessive crying, anhedonia, selfdestructive behaviour, dissociation or emotional numbing			
Persistent negative self-concept			at least one symptom
Beliefs about oneself as diminished, defeated, inferior or worthless; feelings of shame, guilt or failure related to the stressor			
Persistent interpersonal disturbances			at least one symptom
Inability to build and sustain relationships, difficulties in feeling close to others, feelings being isolated or disconnected from other people; may manifest as avoiding or having little interest in relationships and social engagement			
Impairment	not required	X	X
Minimum duration of symptoms	not stated	at least several weeks	persistent

Prolonged grief disorder

Prolonged grief disorder emerges after (often traumatic) death of a partner, parent, child or other close person to the bereaved. There is pervasive yearning or preoccupation with the deceased that is associated with intense emotional pain such as sadness, guilt, anger, denial, blame, difficulty accepting the death, feeling one has lost a part of one's self, an inability to experience positive mood, emotional numbness or difficulty in engaging with social or other activities (3). The intense grieving persists atypically long, at least six months. The disturbance causes significant impairment in important areas of functioning. Treatment of this disorder should be specific for (traumatic) grief and not merely standard treatment of depression (4).

Clinical implications of the changes in the diagnostic systems

Changes in classification systems may have implications on the prevalence estimates of disorders, changes in clinical features such as comorbidity, functioning, as well as treatment provision and treatment outcomes. For example, the proposed ICD-11 PTSD criteria have identified a fewer (or less frequently equal) number of cases compared to ICD-10, DSM-IV or DSM-5 in adult studies (8, 9, 13, 19-21). However, ICD-11 identified more cases with PTSD in one child sample when compared to DSM-IV and DSM-5 (22). In our study with adolescents and young adults ICD-11 criteria identified more PTSD cases than DSM-IV and far less than ICD-10 (11).

Diagnostic agreement on PTSD between classification systems also varies. In one adult sample of 510 injury patients followed 72 months after hospitalization, PTSD was diagnosed simultaneously in 64% of the cases with both ICD-10 and the proposed ICD-11 criteria, and in 42% of the cases with both the proposed ICD-11 and DSM-5 criteria among those meeting at least one PTSD criterion (20). Similarly, ICD-10 and DSM-IV were only at a moderate level of diagnostic agreement with the ICD-11 PTSD criteria in an adolescent and young adult sample (11). If the ICD-10 diagnostic criteria were complemented with the impairment criterion, the diagnostic agreement changed to be good with ICD-11.

Conclusion

The 11th revision of ICD is intended to serve primary care settings where relevant diagnostics and a proper treatment plan can be generated. Using the very core symptoms of each disorder should enable differentiation between the disorders while "artificial" comorbidity decreases. On the other hand, this may underestimate the multitude of symptoms that we observe in our patients requiring specialized levels of care. As the ICD-11 is implemented into clinical practice, the statistics on primary and specialized health care will probably change to some degree as well as clinical picture of the patients in treatment. Those involved in academic research will have to put up with coexisting and unharmonized DSM-5 and ICD-11. The proposed *Disorders specifically associated with stress* class in ICD-11 brings complex PTSD and prolonged traumatic grief "onto stage" and legitimizes their specific treatment needs.

References

1. Reed GM. Toward ICD-11: improving the clinical utility of WHO's international classification of mental disorders. Prof Psychol Res Pr 2010; 41: 457-464.

2. World Health Organization. The ICD-10 classification of mental and behavioural disorders: clinical descriptions and diagnostic guidelines. Geneva: World Health Organization; 1992.

3. World Health Organization. ICD-11 beta draft: joint linearization for mortality and morbidity statistics. Geneva: World Health Organization; 2016. http://apps.who.int/classifications/icd11/browse/l-m/en [Accessed 29 May 2016].

4. Maercker A, Brewin CR, Bryant RA, Cloitre M, Reed GM, van Ommeren M, Humayun A, Jones LM, Kagee A, Llosa AE, Rousseau C, Somasundaram DJ, Souza R, Suzuki Y, Weissbecker I, Wessely SC, First MB, Saxena S. Proposals for mental disorders specifically associated with stress in the ICD-11. Lancet 2013; 381: 1683-1685.

5. Forbes D, Lockwood E, Creamer M, Bryant RA, McFarlane AC, Silove D, Nickerson A, O'Donnell M. Latent structure of the proposed ICD-11 post-traumatic stress disorder symptoms: implications for the diagnostic algorithm. Br J Psychiatry 2015; 206: 245-251.

6. Elhai JD, Miller ME, Ford JD, Biehn TL, Palmieri PA, Frueh BC. Posttraumatic stress disorder in DSM-5: estimates of prevalence and symptom structure in a nonclinical sample of college students. J Anxiety Disord 2012; 26: 58-64.

7. Miller MW, Wolf EJ, Kilpatrick D, Resnick H, Holowka BP, Keane DW, Rosen RC, Friedman MJ. The prevalence and latent structure of proposed DSM-5 posttraumatic stress disorder symptoms in U.S. national and veteran samples. Psychol Trauma 2013; 5: 501-502.

8. Tay AK, Rees S, Chen J, Kareth M, Silove D. The structure of post-traumatic stress disorder and complex post-traumatic stress disorder amongst West Papuan refugees. BMC Psychiatry 2015; 15: 111.

9. Hansen M, Hyland P, Armour C, Shevlin M, Elklit A. Less is more? Assessing the validity of the ICD-11 model of PTSD across multiple trauma samples. Eur J Psychotraumatol 2015; 6: 28766.

10. Glück TM, Knefel M, Tran US, Lueger-Schuster B. PTSD in ICD-10 and proposed ICD-11 in elderly with childhood trauma: prevalence, factor structure, and symptom profiles. Eur J Psychotraumatol 2016; 7: 29700.

11. Haravuori H, Kiviruusu O, Suomalainen L, Marttunen M. An evaluation of ICD-11 posttraumatic stress disorder criteria in two samples of adolescents and young adults exposed to mass shootings: factor analysis and comparisons to ICD-10 and DSM-IV. BMC Psychiatry 2016; 16: 140.

12. Cloitre M, Garvert DW, Brewin CR, Bryant RA, Maercker A. Evidence for proposed ICD-11 PTSD and complex PTSD: a latent profile analysis. Eur J Psychotraumatol 2013; 4: 20706.

13. Knefel M, Lueger-Schuster B. An evaluation of ICD-11 PTSD and complex PTSD criteria in a sample of adult survivors of childhood institutional abuse. Eur J Psychotraumatol 2013; 4: 22608.

14. Cloitre M, Garvert DW, Weiss B, Carlson EB, Bryant RA. Distinguishing PTSD, complex PTSD, and borderline personality disorder: a latent class analysis. Eur J Psychotraumatol 2014; 5: 25097.

15. Perkonigg A, Höfler M, Cloitre M, Wittchen H-U, Trautmann S, Maercker A. Evidence for two different ICD-11 posttraumatic stress disorders in a community sample of adolescents and young adults. Eur Arch Psychiatry Clin Neurosci 2016; 266: 317-328.

16. Elklit A, Hyland P, Shevlin M. Evidence of symptom profiles consistent with posttraumatic stress disorder and complex posttraumatic stress disorder in different trauma samples. Eur J Psychotraumatol 2014; 5: 24221.

17. Knefel M, Garvert DW, Cloitre M, Lueger-Schuster B. Update to an evaluation of ICD-11 PTSD and complex PTSD criteria in a sample of adult survivors of childhood institutional abuse by Knefel & Lueger-Schuster (2013): a latent profile analysis. Eur J Psychotraumatol 2015; 6: 25290.

18. Resick PA, Bovin MJ, Calloway AL, Dick AM, King MW, Mitchell KS, Suvak MK, Wells SY, Stirman SW, Wolf EJ. A critical evaluation of the complex PTSD literature: implications for DSM-5. J Trauma Stress 2012; 25: 241-251.

19. Morina N, van Emmerik AAP, Andrews B, Brewin CR. Comparison of DSM-IV and proposed ICD-11 formulations of PTSD among civilian survivors of war and war veterans. J Trauma Stress 2014; 27: 647-654.

20. O'Donnell ML, Alkemade N, Nickerson A, Creamer M, McFarlane AC, Silove D, Bryant RA, Forbes D. Impact of the diagnostic changes to post-traumatic stress disorder for DSM-5 and the proposed changes to ICD-11. Br J Psychiatry 2014; 205: 230-235.

21. Stammel N, Abbing EM, Heeke C, Knaevelsrud C. Applicability of the ICD-11 proposal for PTSD: a comparison of prevalence and comorbidity rates with the DSM-IV PTSD classification in two post-conflict samples. Eur J Psychotraumatol 2015; 6: 27070.

22. Danzi B, La Greca A. DSM-IV, DSM-5, and ICD-11: how well do diagnostic criteria for PTSD fit children after disasters? ISTSS 30th annual meeting poster abstracts, abstract #182. 2014. https://www.istss.org/ISTSS_Main/media/Documents/2014PosterAbstracts.pdf [Accessed 29 Mar 2016].

Henna Haravuori, MD, PhD
Mental Health Unit, Department of Health, National Institute for Health and Welfare
Adolescent Psychiatry, University of Helsinki and Helsinki University Hospital

Mauri Marttunen, MD, PhD, professor
Mental Health Unit, Department of Health, National Institute for Health and Welfare
Adolescent Psychiatry, University of Helsinki and Helsinki University Hospital

Correspondence:
henna.haravuori@thl.fi