

The difference Diagnosis criteria for PTSD

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Abstract. Post-Traumatic Stress Disorder (PTSD) is a debilitating mental health condition that significantly affects individuals who have experienced trauma. PTSD has substantial impact on mental, emotional, and physical well-being, encompassing emotional distress, impaired social functioning, cognitive deficits, adverse physical health outcomes, and even suicidal ideation. Early diagnosis of PTSD is vital, given its profound consequences. The diagnostic process is intricate and involves diverse criteria and assessment tools. This research explores these diagnostic methods, focusing on the criteria outlined in the Diagnostic and Statistical Manual of Mental Disorders (DSM) and the International Classification of Diseases (ICD). Furthermore, it emphasizes the importance of self-rating scales and a groundbreaking discovery related to saliva as a potential diagnostic marker for PTSD. The evolution of diagnostic criteria, diagnostic frameworks in the DSM-5 and ICD-11, self-rating scales like the PTSD Checklist (PCL), and the potential of saliva as a diagnostic criterion are discussed. These diagnostic tools offer valuable insights for the assessment and diagnosis of PTSD, enhancing treatment and support for affected individuals.

Keywords: Post-traumatic stress disorder; DSM; ICD; self-rating scales; saliva.

1. Introduction

Post-Traumatic Stress Disorder (PTSD) is a mental health condition that can have a profound impact on individuals who have experienced traumatic events [1]. PTSD poses significant harm to individuals, affecting their mental, emotional, and physical well-being. The consequences of PTSD can be severe and far-reaching, including emotional distress, impaired social functioning, cognitive impairments, adverse physical health, and suicidal thoughts and behaviors. Therefore, making an early diagnosis of PTSD is of utmost importance. Diagnosing PTSD is a complex process, involving various diagnostic criteria and assessment tools. This study aims to explore the diagnostic methods for PTSD, including the criteria established by the Diagnostic and Statistical Manual of Mental Disorders (DSM) and the International Classification of Diseases (ICD). We will also delve into the significance of self-rating scales and a groundbreaking discovery related to saliva as a potential diagnostic criterion for PTSD.

The diagnostic criteria for PTSD have evolved over the years, with the DSM-5 introducing significant changes to the diagnostic framework. This evolution is a testament to the growing understanding of the disorder and the need to adapt diagnostic standards to encompass its heterogeneity. This study will examine the key criteria outlined in the DSM, highlighting the importance of traumatic stressors and the expansion of symptom clusters in the DSM-5. Additionally, questionnaire assessments and biological markers, such as saliva, are important diagnostic methods for PTSD. This paper will provide a comprehensive overview of the diagnostic methods for PTSD, shedding light on the complex yet essential process of assessing and diagnosing this challenging mental health condition.

2. The diagnostic methods for post-traumatic stress disorder

2.1. The DSM's diagnostic criteria

A fundamental prerequisite for diagnosing PTSD is the presence of traumatic stressors [2]. In the DSM-3, the PTSD diagnosis encompassed three primary symptom clusters: recurrent traumatic experiences (e.g., nightmares, flashbacks), persistent avoidance of stimuli associated with the trauma

(e.g., places or people linked to traumatic events, discussing related experiences), and sustained heightened alertness (e.g., being easily startled, hyper-vigilance to potential threats). This diagnostic framework had a profound impact, forming the basis for various psychological and medical treatments for PTSD over the ensuing decades, including cognitive-behavioral therapy and selective serotonin reuptake inhibitors (SSRIs). Following the publication of the DSM-3, the diagnosis of PTSD gained widespread clinical acceptance, although there was ongoing debate regarding its optimal description within the DSM. Consequently, it underwent several revisions during the subsequent three decades [3]. The DSM-5, released in 2013, expanded the scope of PTSD, introducing four symptom clusters and one subtype, totaling 20 distinct symptoms.

Notably, the concept of "sustained avoidance" from DSM-3 was subdivided into two types: the continued avoidance of stimuli associated with traumatic events and a depolarization of cognitive and emotional aspects linked to traumatic events. This broadening of the diagnostic framework aimed to encompass the heterogeneity within the PTSD diagnosis, acknowledging that different individuals can experience diverse traumatic wounds [4]. In DSM-5, "persistent heightened alertness," which includes expressions of anger and irritability, and additional dissociative symptoms like derealization and depersonalization, were recognized as a subtype of PTSD. Considering the definition and diagnostic criteria of PTSD in DSM-5, there are a total of 636,120 potential combinations of symptoms. This diversity underscores the manifold ways in which PTSD can manifest and emphasizes the necessity to take these variations into full consideration when assessing prognosis and formulating treatment plans.

In 1993, Post-Traumatic Stress Disorder (PTSD) was officially incorporated into the World Health Organization's International Classification of Diseases (ICD-10) [5]. The most recent update came with the publication of ICD-11 in 2018, which brought substantial changes to the diagnostic criteria for PTSD. Notably, the ICD takes a fundamentally different approach to diagnosing PTSD compared to the diagnostic criteria found in the DSM. In the latest edition of ICD-11, the diagnosis of PTSD is streamlined into three symptom clusters, encompassing a total of six specific symptoms. These clusters include the re-experiencing of traumatic events, the avoidance of trauma-related stimuli, and heightened alertness.

2.2. The ICD-11's diagnostic criteria

Compared to the DSM, the ICD places a stronger emphasis on a public health perspective, with a focus on clinical applicability. The aim is to establish globally applicable diagnostic criteria that simplify the diagnosis of PTSD and facilitate the implementation of treatment plans.

The ICD-11's diagnostic criteria for PTSD mandate the persistence of at least one symptom for several weeks following exposure to a traumatic event, while the DSM-5 specifically requires a minimum of one month. Both the DSM-5 and ICD-11 underscore the significance of exposure to traumatic events, which serves to differentiate PTSD from disorders exhibiting similar symptoms, including adjustment disorders, anxiety disorders, obsessive-compulsive disorder, and somatic symptom disorders [6]. Individuals with major depressive disorder (MDD) may encounter traumatic events but generally do not display the characteristic symptoms associated with post-traumatic stress disorder. The symptoms of traumatic brain injury (TBI) tend to manifest as more specific neurocognitive reactions, such as persistent disorientation or confusion. It's important to note that certain dissociative reactions in PTSD, such as flashback symptoms, must be distinguished in clinical diagnosis from other mental disorders like hallucinations, delusions, and other perceptual disorders. This differentiation is vital because the symptoms of PTSD are rooted in actual experiences of exposure to traumatic events.

ICD-11 incorporates both Post-Traumatic Stress Disorder (PTSD) and Complex Post-Traumatic Stress Disorder (CPTSD). CPTSD is a distinct diagnosis rooted in PTSD but extends to encompass a broader range of symptoms associated with exposure to more severe, prolonged, and recurring traumatic events. Such events can include instances like childhood sexual abuse and domestic violence, leading to a more intricate symptom profile compared to standard PTSD. CPTSD primarily

manifests in three key aspects: difficulty in emotional regulation (for instance, struggles in managing emotions), a profound sense of identity disruption (such as self-uncertainty and a pervasive feeling of failure), and challenges in interpersonal relationships (including avoidance of social interactions). These three symptoms are collectively known as disturbances in self-organization (DSO). Consequently, the core of CPTSD diagnosis lies in the amalgamation of PTSD and DSO. It's noteworthy that both PTSD and CPTSD fall under the category of "stress-related disorders." However, they cannot co-occur within the same individual, meaning that if a patient is diagnosed with CPTSD, they cannot simultaneously receive a diagnosis of PTSD, and vice versa. While numerous studies have consistently shown that CPTSD typically results from prolonged exposure to traumatic events, it's important to recognize that sustained, chronic traumatic events, such as childhood abuse, may also lead to PTSD rather than CPTSD. Conversely, even single traumatic events can trigger CPTSD in some individuals. These long-term observations raise questions about the role of individual personality factors and the social environment, including social support, in the progression of PTSD. It prompts consideration of whether traumatic events should be viewed as risk factors for stress-related disorders rather than strict diagnostic prerequisites. Vulnerable individuals who experience a single traumatic event may also develop CPTSD. Conversely, individuals with strong resilience and robust social support systems may withstand more extreme traumatic events and may only develop PTSD or even remain resilient in the face of adversity. Hence, the nature of the traumatic event alone does not serve as an absolute factor for distinguishing between PTSD and CPTSD.

2.3. Self-rating scale

The PTSD Symptom self-rating scale is a crucial tool for both screening and diagnosis. It boasts various forms, straightforward content, high operability, and strong reliability and validity, making it a widely used instrument in clinical screening and pre-treatment evaluation. Currently, there are several widely recognized self-assessment scales, including the PTSD Checklist (PCL), PTSD Primary Care Scale (PC-PTSD), Impact of Event Scale-Revised (IES-R), Davidson Trauma Scale (DTS), and Post-Traumatic Diagnosis Scale (PDS), among others. Additionally, there are general mental health questionnaires like the General Health Questionnaire (GHQ) that can aid in assessing the mental health status of individuals with PTSD. To illustrate, let's take a closer look at the PCL scale. The PCL scale was first introduced by Weathers et al. at the 9th International Conference on Traumatic Stress in 1993. It originally comprised 17 items, each corresponding to one of the 17 symptoms of PTSD outlined in DSM-4. In 2013, the American Psychiatric Association revised the diagnostic criteria for PTSD in the DSM-5, introducing the core symptom of "negative changes in cognition and mood related to traumatic events" and expanding PTSD into four symptom clusters, encompassing a total of 20 symptoms. Accordingly, the PCL scale was updated to the PCL-5 scale, expanding from 17 items to 20 items, each corresponding to one of the 20 symptoms of PTSD in the DSM-5 [7]. The PCL scale, presented in a Likert scale format, assesses the severity of each symptom on a 5-point scale, ranging from 0 for "not at all" to 4 for "extreme." Subsequently, it calculates the total score based on the 20 items, with a maximum score of 80. The results of the PCL-5 scale can be determined using two methods: the total score evaluation and the symptom evaluation. Validity studies for the PCL-5 scale suggest diagnostic criteria with a total score falling within the range of 28 to 38, and criteria for symptom identification entail achieving a rating of "moderate," "severe," or "extreme" (i.e., scoring 2 or more points) in at least one of the four symptom clusters of PTSD.

The PCL scale is renowned for its high internal consistency, retest reliability, and validity, making it the most widely employed self-rating scale for assessing PTSD symptoms both domestically and internationally. Translated versions of the PCL scale in countries and regions with diverse cultural backgrounds have also exhibited strong reliability [8]. For example, Ibrahim et al. conducted a study using the PCL-5 scale for screening and standard clinical diagnosis on 206 adults in Iraqi Kurdistan. They discovered that the Klonbach (α) coefficient for the PCL-5 scale was 0.85, indicating a high level of retest reliability. The diagnostic threshold was set at 23 points, demonstrating good sensitivity and specificity at 0.82 and 0.70, respectively [9]. Kruger-Gottschalk et al. conducted a comparative

analysis of the results from the German version of the PCL-5 scale against standard clinical diagnosis. Their findings revealed high internal consistency ($\alpha = 0.95$) and retest reliability ($r = 0.91$). The diagnostic threshold for the PCL-5 scale was 33 points, and it displayed the highest diagnostic accuracy among the tested measures.

2.4. Saliva as a Diagnostic Criterion

A recent study conducted by Israeli researchers has identified saliva as a potential diagnostic criterion for post-traumatic stress disorder (PTSD) [10]. This groundbreaking discovery, published in the British journal *Molecular Psychiatry*, highlights the use of saliva samples to offer a rapid, objective, and accurate diagnosis of individuals suffering from PTSD. PTSD is a mental health condition triggered by the experience, witnessing, or exposure to one or more traumatic events, either personal or witnessed in others. Symptoms of PTSD can encompass hallucinations, nightmares, severe anxiety, and involuntary recollections of traumatic events. An international research team, led by Tel Aviv University and the University of Haifa in Israel, conducted comprehensive psychological tests and questionnaires on approximately 200 Israeli veterans who had participated in a war four decades ago. Concurrently, they analyzed the microbiome composition of saliva samples collected from these veterans. The psychological assessments covered a wide range of factors, including sleep quality, appetite disturbances, suicidal thoughts, spousal support, and overall life satisfaction. Upon analyzing the microbiome composition in the subjects' saliva samples and comparing the results with their psychometric and questionnaire assessments, the researchers observed a unique oral microbiome profile in individuals with PTSD. This microbiome profile closely resembled that of individuals who exhibited a high number of psychopathological indicators. The researchers emphasize that this study provides an objective molecular and biological criterion for diagnosing PTSD, in contrast to relying solely on past behavioral criteria. This groundbreaking discovery has the potential to facilitate more accurate diagnoses of PTSD in the future and could lead to the development of microbial-related treatments for the condition.

3. Conclusion

This study concluded the diagnostic methods for post-traumatic stress disorder (PTSD), including the criteria outlined in the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* and the *International Classification of Diseases (ICD)*. The DSM-5 expanded the scope of PTSD by introducing four symptom clusters and one subtype, resulting in a total of 20 distinct symptoms. Notably, the concept of "sustained avoidance" was subdivided into two types in the DSM-5, aiming to encompass the heterogeneity within the PTSD diagnosis. In contrast, the ICD-11 adopts a different approach, streamlining the diagnosis into three symptom clusters, emphasizing a public health perspective and clinical applicability. Both the DSM-5 and ICD-11 highlight the significance of exposure to traumatic events in distinguishing PTSD from other disorders. Additionally, the use of self-rating scales, such as the PTSD Checklist (PCL), is a crucial tool for screening and diagnosis. The PCL scale, renowned for its reliability and validity, has been updated to the PCL-5 scale, aligning with the DSM-5's expanded criteria. A groundbreaking discovery in PTSD diagnosis involves the potential use of saliva samples as a diagnostic criterion. Research conducted in Israel has identified a unique oral microbiome profile in individuals with PTSD, offering a molecular and biological criterion for diagnosing the condition. Overall, these diagnostic methods and advancements provide valuable tools for assessing and diagnosing PTSD, contributing to more accurate and effective treatment and support for individuals affected by this condition.

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