



Post traumatic stress disorders (PTSD) and dental practice

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Introduction

As a military dental provider, it is important to have an awareness concerning post traumatic stress disorders (PTSD), a “signature injury” of service members returning from Iraq and Afghanistan.¹ Unlike conventional traumatic injuries, PTSD is not apparent on visual exam; however, PTSD patients often present with increased anxiety, fear, general arousal, pain and dysfunction which present management challenges for the dental health care team.

PTSD is categorized as an anxiety disorder and may develop following exposure to an event that is perceived to be life-threatening or traumatic, i.e. sexual or physical abuse, assault, serious accidents, natural disasters, terrorist attacks and combat.² The characteristics of PTSD fall into three distinct symptom clusters: 1.) intrusive memories or re-experiencing events, 2.) avoidance behaviors, and 3.) persistent elevated arousal.² Other symptoms may include mood disturbances, memory problems and cognitive difficulties.³

The likelihood of a military dental provider encountering a patient with PTSD is high. It is estimated that 1.5-1.64 million military personnel have been deployed to Iraq or Afghanistan since 2001.^{1,4} A RAND Corporation study reported 14% of soldiers returning from the combat zone screened positive for PTSD.¹ Another investigation showed approximately 78% of injured personnel experienced mental health problems with PTSD being the most common diagnosis (44%).^{1,4} An increased prevalence of PTSD is not unique to the Iraq and Afghanistan conflicts. A recent study found an 18.7% lifetime rate of PTSD for veterans of the Vietnam War.⁵ By comparison, PTSD has a lifetime prevalence of 1-14% in the general population.⁶

In addition to affective symptoms, patients with PTSD often possess a variety of other comorbid conditions such as temporomandibular disorders, headache, fibromyalgia, gastrointestinal disorders and cerebrovascular disease.^{5,7} PTSD patients also frequently present with comorbid chronic pain complaints. A 2007 report indicated that 66% of treatment-seeking veterans with PTSD had a chronic pain complaint at their initial evaluation.⁵ Many PTSD patients experience difficulty coping and adapting to their pain.⁶ It is clearly apparent that

PTSD can negatively impact a patient’s overall health status and challenge the ability of health care providers to provide effective symptom management.

Although the biology of PTSD is not fully understood, neurobiologic research has demonstrated problems with dysfunctional stress systems and altered limbic, paralimbic and prefrontal brain function. PTSD has been associated with decreased hippocampal volume, increased amygdalar response, diminished prefrontal cortex activity and changes in neurotransmitter systems.^{8,9} All of the aforementioned provide the physiologic basis to explain the enhanced anxiety and fear seen in PTSD. Research has also shown a significant overlap between the neurobiology of PTSD and chronic pain.¹⁰ Theories to explain the relationship between the two disorders suggest that the affective, physiologic and avoidance elements of PTSD may maintain and worsen chronic pain while the cognitive, affective and behavioral components of chronic pain may exacerbate PTSD.⁹

Clinical Considerations

Patients who develop PTSD may initially seek health care for physical rather than psychological complaints, thus the first provider they encounter might be in a dental setting.¹¹ Although dentists do not diagnose and treat PTSD, it is important that dental providers have a basic understanding of the risk factors and symptoms. Patients with a history of deployment or traumatic life events who also report problems with sleeplessness, anxiety, depression, mood changes, flashbacks or intrusive thoughts may have PTSD and should be referred to an appropriate medical or behavioral health provider for further assessment.¹²

With regard to orofacial pain complaints, PTSD is associated with higher levels of pain and affective distress, both of which can complicate clinical management.¹¹ This is of special importance considering the high prevalence of head pain in the military.¹³ Head and neck injuries have been reported in one quarter of service members evacuated from the conflict in Afghanistan and Iraq.¹⁴ The head was either the primary (32%) or secondary (22%) pain location identified in soldiers returning from Iraq.¹⁵

PTSD patients may have difficulty in describing or being aware of their emotions or mood. Likewise they may demonstrate a diminished capacity to employ adaptive and coping strategies.⁹ Patients with PTSD and high levels of

anxiety may respond with increased fear and avoidance behaviors. When faced with arousing stimuli, such as pain or psychosocial stressors, they may exhibit disturbances in affective control and display increased irritability, anger, sense of loss or shame.³ It is prudent therefore for providers to be mindful of both verbal and nonverbal interactions with PTSD patients and avoid sounding judgmental or condescending.¹⁶ Additionally PTSD patients may have difficulties with sustained attention and working memory that impair long term recall.¹⁷ It is important to ensure that such patients leave with written copies of any home care recommendations or post operative instructions for them to refer to later.¹⁶

It is estimated that approximately 80% of the United States population has some anxiety about dental treatment.¹⁸ Due to their higher levels of anxiety, PTSD patients may require even more time and patience to establish a positive working relationship. As with all anxious patients, asking generalized questions such as “are there any parts of dental treatment that are particularly difficult for you?” or “is there anything we can do to make you feel more comfortable?” may help patients to better focus and respond in a more appropriate manner. Simple, subtle adjustments in the dental environment may improve a patient’s sense of safety and self control. For example, it is not unusual for PTSD patients to perceive supine positioning in the dental chair or facing away from a room door as threats. Small changes in the arrangement of the dental operator may help to reduce such threat cues. Taking breaks during prolonged procedures and establishing designated signals for “stop” are two other beneficial techniques to use with PTSD and other highly anxious patients.¹⁶

The prevalence of PTSD in the military population makes it important for dental providers to have a basic understanding of the disorder and refer symptomatic patients for evaluation. Dentists also need to be aware of the potential impact of PTSD on the provision of dental care in this special patient population, especially with regard to the management of anxiety and pain. Failure to recognize and address psychological distress concerns with PTSD can adversely affect treatment outcomes.⁶

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