Post-traumatic stress disorder

(PTSD)

Abstract

PTSD is a common stress disorder that occurs after exposure to a stressful traumatic event such as assault, life-threatening situations or a family member death. All these can cause PTSD which is diagnosed based on a cluster of symptoms. These symptoms include self-destructive behavior, alterations in behavior and increased violence ot fear. Most of patients are responding well to the treatment which is based more on therapy sessions than drugs, and getting better after period of time.

Introduction

PTSD is a mental disorder that occurs at individuals after exposure to intensive stress or exceptionally threatening trauma such as life threatening situations, assault or natural disasters. PTSD can occur after sudden and unexpected one-time event, in some cases, after the first incident, it may recur on either a short term or intermittent basis or it may occur on a regular prolonged basis to the point of becoming chronic.[1]. Examples of traumatic events include: military combat, motor vehicle and other accidents, interpersonal violence such as assault, sexual or emotional abuse and certain types of disability, illness and medical treatment, especially for life threatening conditions.

The exposure to traumatic events can occur in different ways, direct experiencing, witness in person, learning that the traumatic event occurred to a family member or someone close and experiencing repeated or extreme exposure to aversive details of the traumatic event(s)[1]. About 7.8% of general population are diagnosed with PTSD.

The majority of individuals exposed to potentially traumatic events experience posttraumatic reactions, such as intensive memories of the event or autonomic arousal such as difficulty concentrating, hyper alertness, increased physiological activation

and reactivity within hours or days of the traumatic event. Most reactions remit spontaneously within the first month or so, as the individual processes them and comes to term what happened.

PTSD can be diagnosed by a special criteria which include four clusters.[1]

Intrusion symptoms: include dissociative reactions (flashbacks) where the individual feels or act as if the traumatic event were reoccurring.[1]

Persistent avoidance of stimuli: include avoidance of places, people or memories that remind the individual of the trauma.[1]

Negative alterations in mood: include inability to remember aspects of the trauma altered world view and anhedonia.[1]

Marked alteration in arousal and reactivity: include irritable behavior or angry outbrustsand reckless or self-destructive behavior[1].

However, one of the most affected groups is the war veterans, in WWI the PTSD was known as *"shell shock"* but in WWII this name had changed into *"battle fatigue*" or *"combat stress reaction*".

Aims of study

This study aims to outline the common causes of PTSD, its effect on the individuals with risk factors, and the best way of treatment.

Materials and methods

Case I

A multiwave survey enrolled a random sample of US veterans who served in the military after 11 September 2001, a total of 1090 veterans from all military branches completed 2 survey waves mailed 1 year apart (retention rate= 79%).[2]

Case II

The other case is focusing more on civilians, exactly the motor vehicle accidents survivors. This study was performed in an emergency department of a large university hospital in klang valley.

All patients who were presented with MVA injuries between august-October 2014 were recruited into the study, the recruited patients were followed up one month later and were asked to complete a self-rated screening questionnaire for PTSD. The study utilized the PTSD checklist for civilians (PCL-C), which is self-rated and it doesn't increase the load on the emergency department staff.[3]

Results

Case I

About 18% of respondents met the criteria of PTSD and 24% met the criteria of alcohol misuse of these, 11% met the criteria for PTSD without alcohol misuse and 7% met the criteria of both PTSD and alcohol misuse.[2]

Overall, 9% endorsed engaging in sever violence and 26% in other physical aggression in the previous year, as measured in wave 2. Financial instability, history of violence before military service, higher combat exposure, PTSD and alcohol misuse at wave 1 were significantly associated with higher violence and physical aggression at the past year, veterans with alcohol misuse and PTSD showed higher rate of violence and aggression (35.9%) compared to other veterans with alcohol misuse only (10.6%), and veterans without alcohol misuse nor PTSD (5.3%).[2]

Case II

During the study 112 patient were included in the study, after one month following their recruitment into the study, patients were followed up and asked to complete the PCL-C. 68 patients responded and agreed to complete the questionnaire. The mean age of these who agreed was 26 years and the majority was men (91%). The incidence of PTSD in this population was (7.4%), (33%) of the females were affected, while (4.8%) of the males were affected.[3]

Disscussion

The two cases are showing a strong relation between PTSD and some factors that can affect the severity of the disorder, also it is clear that PTSD can occur equally in any individual who suffered a trauma that's capable of inducing it.

In the first case the study was directed toward the veterans in different ages and military branches, and their increased violent behavior and its relation to alcohol misuse,[2] while the second case which is focused upon civilians who suffered a serious injury due to MVA. The first case patients had different behavior compared to the second case, where they developed more violent and anger issues, and that was varying from, highly violent and aggressive to moderate or low, the grade was affected by risk factors such as alcohol misuse, financial instability and some other factors. therefore the veterans were separated into three groups, the first one included those who had both PTSD and alcohol misuse(35.9%)[2] were associated with more violent behavior than the two other groups, on the other hand veterans with alcohol misuse only(10.6%)[2] had less violent behavior than the first group, but higher rate than the veterans without PTSD nor alcohol misuse(5.3%).[2]. Meanwhile the second case patients didn't show an elevation in their violent behavior, because veterans have more incidence of PTSD than people affected by MVA. Even with all these studies and theories, it's still hard to separate between normal people and people with PTSD, because people have different reactions to traumas, for example after war, some soldiers becomes more nervous and afraid, while other group of soldiers becomes more violent and aggressive. As we said earlier some risk factors may indicate that, but even tough, it's still a real challenge to predict the behavior of individuals after sever trauma.

the data showed that PTSD is associated with elevated risk of violence and aggression in veterans, veterans with PTSD were more likely to commit sever violence in the next year compared to the veterans without PTSD (20% v 6%)[2], and were more likely to involve in physical aggression (48% v 21%)[2]. PTSD without alcohol misuse came close to showing a significant relationship to elevated risk of other physical aggression in multiple regression analyses[2], because veterans with both PTSD and alcohol misuse had higher rates of violence and aggression than veterans with alcohol misuse only, therefore PTSD remains an important factor in the study of violence and aggression of veterans.

It's safe to say that both PTSD and alcohol misuse are related; some patients with high PTSD symptoms may misuse alcohol as some type of self-medication, subsequently, the alcohol will increase the violent behavior of these individuals.[2]

The following chart shows the numbers of veterans and their conditions.

veterans	Total	Sever violence	Physical aggression
None	588	29(5.7%)	102(18.2%)
PTSD	98	10(10%)	39(40.2%)
Alcohol misuse	154	16(10.5%)	48(31.4%)
Both	57	21(35.9%)	35(61.5%)

It's clear that veterans with both PTSD and alcohol misuse had the highest incidence of violence and aggression, and this gives us a hint that some risk factors can increase the severity of symptoms of PTSD.[4]

The second case which is focused upon the patients affected by MVA showed a lower incidence of PTSD and that's maybe duo to the nature of

the trauma, some researches has been done by several teams regarding the lifetime exposure to stressful events in adults, they found that MVA were the most common stressful events (20%)[3], in 7.2% of these adults were PTSD positive, this study has been done in Malaysia[3], and by far it has lower incidence of PTSD positive patients, also some studies in japan has shown even lower numbers, the authors suggested that the culture may affected the numbers[3]. For example in the eastern culture the psychological symptoms are not taken as serious as physical symptoms. And sometimes they don't consider it as illness at all. Which makes it even harder to determine people with PTSD. However, another point of interest wat that there wasn't a big difference between PTSD and non-PTSD groups in age, gender and seriousness of accident. Many studies showed that women are more likely to develop PTSD than males.[3]

However, in both cases, we saw that some risk factors may influence the severity of the symptoms of PTSD such as alcohol misuse, financial instability and gender as well, also the nature of the trauma may indicate the type of behavior for some of the patients.

Fortunately, there are many types of treatment for PTSD and usually it focuses on psychological treatment such as

Prolong exposure treatment which uses detailed imagining of the trauma or progressive exposure to symptoms in a safe, controlled way to help person to face and gain control of fear and distress and learn how to cope[5].

Another type is group therapy which encourages survivors of similar traumatic events to share their experiences and reactions in a comfortable non-judgmental group.[5]

Sometimes medications are used to help in control of symptoms such as: anti-depressants, serotonin reuptake inhibitors and many more.[5]

Conclusion

In conclusion, it's safe to say that PTSD is a real challenge, especially in the war veterans and people who suffered a trauma. Also its crucial to follow the risk factors that may increase the severity of this disorder. The way of the development of this disorder still not fully understood but some scientists suggested that it might be related to some parts of the brain which are the hippocampus and the amygdala, which are responsible for the memory and fear. And Even with all these studies and researches it’s a challenge to predict who is going to develop PTSD and that’s because every person have a different reaction to the trauma. Fortunately most of the patients are responding to the treatment even though it might take some of them time to get better.

References

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