

Treatment of Post-Traumatic Stress Disorder Using Integrative Medicine: Case History

Abstract

Post-traumatic stress disorder (PTSD) is a complex multifactorial mental disorder with unknown aetiology and heterogeneous presentations. Due to its complexity, in order for treatment to be effective, the treatment approach should be individualised, integrated and multidisciplinary, and address the four major biopsychosocial components: (1) genetics, age, sex, race and existing medical conditions; (2) diet, lifestyle and smoking; (3) depression, anxiety, stress or excessive anger; and (4) social support system, quality of marriage and finances. The use of complementary and alternative medicine (CAM) has proved itself to be safe and effective for many disorders, and its application in the treatment of mental disorders is increasing. This article presents a case study in which an integrative approach that combined psychiatric medicine and Traditional Chinese Medicine was effective in helping the patient return to her normal lifestyle.

Introduction

In the past few decades, the integration of conventional biomedicine and Traditional Chinese Medicine (TCM) has been growing rapidly. In Israel the last decade has also seen developments in the integration of Western psychiatric medicine and TCM. However, the use of integrative medicine in the treatment of psychiatric disorders is still relatively limited, as is the research in this particular area.

This article will briefly review both the concept of post-traumatic stress disorder (PTSD) and the perspective of TCM on the relationship between PTSD and blood stasis. It will present a case study in which the addition of TCM treatment led to a significant improvement in the mental health of a female patient, after conventional biomedicine had been unable to provide relief on its own.

Definition of PTSD

PTSD, as the term is used here, refers to the negative effects of exposure to stressful life events – especially life-threatening events – on the mental health of the individual.¹ The effects of such exposure are well known and have been documented in the traditional literature of many different cultures. As early as 2000 B.C.E., a cuneiform tablet described the death in battle of King Urnamma and the negative consequences suffered by the people of Ur.² Yet, only in 1980, in light of the struggles of the veterans of the Vietnam War, as well as the Women's Movement of the 1970s, did the DSM-III (Diagnostic and Statistical Manual of

Mental Disorders, 3rd Ed.) classify the condition as a separate and unique psychiatric disorder.³ This was the first step in raising consciousness of the difficult mental state suffered by those exposed to traumatic and life-threatening events. It also provided the basis for future critical research.⁴

Traumatic events occur on a daily basis worldwide. Trauma can occur throughout the life cycle, affecting men and women of different societies and cultures.⁵ However, there has been debate over the definition of the essence of a traumatic event and, over the years, this definition has changed: with every new edition of the DSM, the definition of PTSD has also been revised, reflecting the results of growing research. There have been difficulties in agreeing on a definition of PTSD that would be both precise and highly sensitive to different traumas and their effects on a variety of victims exposed to them.⁶ Thus, an attempt has been made to answer the question of why certain people are seriously affected by relatively minor trauma (for example, a traffic accident with no casualties, or being fired from one's workplace) while, on the other hand, other individuals are insignificantly affected by life-threatening traumatic events.⁷ This step led to the broadening of the definition of PTSD to include further objective components that refer to the traumatic event (referred to as 'Criterion A'), along with the subjective reactions of the individual to that event.⁸ In determining the likelihood that an individual will develop PTSD, the current definition of the term emphasises two factors: the role of the

By: Shay Ravid,
Shai Shorer, Alon
Reshef, Elad
Schiff, Maitri
Shacham, Leslie
Cohen & Boaz
Bloch

Keywords:

Post traumatic
stress disorder,
PTSD,
acupuncture,
Chinese
medicine, TCM,
Chinese herbs,
integrative
medicine.

individual's direct exposure with awareness and presence of mind as the life-threatening trauma unfolds, or the role of indirect exposure (i.e. if the trauma occurred to a closely related individual or co-worker) in the likelihood of the individual developing the disorder as a result.⁹

From the original definition to its present version (DSM-V), there have been changes in the symptoms of PTSD. The current definition includes four categories of symptoms: 1) intrusive symptoms, 2) physiological overstimulation, 3) avoidance and emotional dissociation, and 4) mood swings that appear after the exposure to the trauma, including continued and excessive emotional distress, shame, guilt and anger related to the traumatic event and its outcomes.¹⁰ The DSM-V relocates PTSD from the anxiety section to the section that deals with the effects of life events that cause emotional stress, thus reflecting the growing awareness of the wide-ranging effects of exposure to trauma and of the severity of the damage that accompanies it, over and above simple anxiety.¹¹

The prevalence of PTSD in the general population

Many research projects have evaluated the incidence of PTSD in various segments of the population. In light of the ongoing debate in the scientific community over the definition of PTSD, the research continues, and a variety of epidemiological data has been made available. A study conducted in 1995 found that in a representative sample of Americans, the incidence of exposure to trauma throughout the life cycle was approximately 60 per cent among males and 51 per cent among females. However, it was also found that only 7.8 per cent of those exposed actually suffer from PTSD.¹² Similar data were gathered in another similar study that was conducted approximately a decade later.¹³ Furthermore, studies that were conducted using the DSM-V definition revealed similar findings.¹⁴ Thus, researchers agreed that the rate of exposure to trauma in the general population is greater than expected and, despite this, most people who are coping with trauma do not develop PTSD.¹⁵

PTSD has been the object of many cross-cultural studies, and it was found that the poorer and less developed the country, the greater the incidence of PTSD.¹⁶ A broad telephone survey done in Israel found that the rate of PTSD in the nation was 9.4 per cent. The researchers pointed out that, despite prolonged exposure to stress (in light of frequent terror attacks), the rate of PTSD in the general population is not high.¹⁷ However, it is significant to note that there are segments of the population in which the rate of PTSD is higher. Among them: soldiers, war veterans, sexual assault victims¹⁸ and survivors of traffic accidents.¹⁹

Vulnerability and resilience: factors that influence the probability of developing PTSD

Some trauma victims develop PTSD, while others do not. Many studies have been conducted to determine which factors are decisive. A distinction is usually made between vulnerability factors that are prior and unrelated to the exposure to trauma, and factors that are related to the traumatic incident and/or the environmental characteristics and lifestyle of the trauma survivor following the exposure to trauma. In light of various and sometimes contradictory findings, it is necessary to examine not only the factors that lead to the development of PTSD over time, but also how these interact with the factors related to the trauma itself, the trauma survivor and his/her environment.²⁰ This applies to both future research and to clinical settings when dealing with patients.

Pre-exposure factors include a prior exposure to trauma, low socio-economic status, lower education and intelligence, age of exposure (the younger the individual, the poorer the prospects), psychiatric history, the incidence of psychiatric disorders in close family members, low self-image, being female, belonging to a minority group, and the existence of prolonged exposure to stress.²¹

A factor related to the trauma itself is perceived danger: the stronger the perception that the danger is life-threatening, the greater the likelihood of developing PTSD. The same applies to experiencing extreme fear and/or feelings of helplessness. The seriousness of the incident, the suffering that the victim endured during the trauma, the feeling of limited control, and the use of denial or emotional disassociation can increase the likelihood of developing PTSD.²² In conjunction with this, it was found that emotional disassociation during the trauma is a central factor in the development of PTSD.²³ It was also found that the lack of emotional and social support post-trauma are factors that prolong the PTSD.²⁴

Physical or emotional trauma, post-trauma and head injuries

The traditional biomedical approach to PTSD assumed that whoever suffered a head injury during the traumatic incident would not develop PTSD, as the injury would cause so much memory loss that the survivor would not be able to recognise and evaluate intrusive thoughts related to the incident.²⁵ On the contrary, much recent research has found that individuals who suffered head injuries are actually in greater danger of developing PTSD.²⁶ However, when dealing with the immediate and the long-term cognitive effects of trauma, it is important to recognise that the symptoms of PTSD and head injury are similar and often coincide; for example they can both cause sleep disturbance as well as functional disturbances.²⁷ The treatment approach for head injuries emphasises cognitive rehabilitation, but it

is commonly recognised that the individual is also in need of accompanying emotional therapy. Due to the similarity of their symptoms and the difficulty of distinguishing between the two diagnoses, specific therapy for the presenting symptoms is recommended, whether either or both diagnoses are present.²⁸

Post-traumatic growth

Researchers who criticise the emphasis on PTSD as one of the main outcomes of trauma point out that equal effort should be spent on research into success in coping with trauma and resilience to external life events as there is on PTSD.²⁹ Thus, along with the recognition of the risk factors in the development of PTSD, there are growing efforts to learn about resilience factors and the process of post-traumatic growth.³⁰ A reverse U correlation was found between the level of PTSD symptoms and the level of post-traumatic growth, so that individuals who suffered from mid-level PTSD showed signs of high post-traumatic growth.³¹ However, individuals who suffered more severe trauma, for example prolonged captivity, do not experience such growth. The significance of this is that above a certain level of exposure to trauma there is damage to the ability to recover. Thus, we can view post-traumatic growth as an additional possible reaction to trauma rather than the opposite of PTSD.³² According to this perspective, post-traumatic growth is an active response to coping with the effects of trauma, and there is a continuous need to sustain post-traumatic growth in the presence of the symptoms of PTSD.

Treatment

From the time that PTSD was first defined, there have been many attempts to develop effective therapies.³³ A variety of treatment approaches – both individual and in a group – have been found to be effective. Among the most effective are focused psychological interventions such as Cognitive Behavioural Therapy (CBT).³⁴ Treatment with Complementary and Integrative Health (CIH) approaches, such as acupuncture, has been found useful in reducing PTSD symptoms, although there are significant differences in effectiveness between various drugs. Additionally, drug therapy does not lead to recovery.³⁵ Treatment by Complementary and Integrative Health (CIH) approaches, such as acupuncture has been found to significantly effective.³⁶ However, since relevant research is still limited, the active factors that reduce PTSD symptoms are still unclear.³⁷

The integration of TCM in the treatment of PTSD

PTSD as a concept does not appear at all in TCM literature. However, TCM can treat specific symptoms that are characteristic of PTSD. This article will focus on the connection between blood stasis and PTSD through a case report.

The history of blood stasis³⁸

The concept of blood stasis is first mentioned in the *Huang Di Nei Jing* (Yellow Emperor's Inner Classic) in the I-II century C.E. The *Shen Nong Ben Cao Jing* (Divine Husbandman's Materia Medica Classic) written in the same period, is the first text to describe blood-moving herbs, for example Tao Ren (Persicae Semen) and Dan Shen (Salviae miltiorrhizae Radix). Zhang Zhong Jing, in his *Shang Han Lun* (Treatise on Cold Damage) and *Jin Gui Yao Lue* (Essentials from the Golden Cabinet), was the first to present the concept of blood stasis (xue jie). Over the years, different treatments for blood stasis were developed. During the Qing Dynasty (1644-1911) Wang Qing Ren, in his volume *Yi Lin Gai Cuo* (Correction of Errors in the Forest of Medicine) compiled 33 ancient formulas and 22 new formulas, among them *Xue Fu Zhu Yu Tang* (Drive Out Stasis from the Mansion of Blood Decoction). These formulas became the cornerstone in the TCM treatment of blood stasis. The understanding of blood stasis continues to develop today, and, according to a Chinese research team, the quality as well as the quantity of studies conducted on blood stasis has increased rapidly in recent years.³⁹

Causes and symptoms of blood stasis

Flaws claims that external trauma is one of the main causes of the development of blood stasis.⁴⁰ As a result of the trauma, the channels and blood vessels are injured so that blood escapes from the vessels and creates haematomas under the skin, between the ligaments and the muscles, in the channels and in the internal organs. Among the symptoms that Flaws describes are: pain that recurs in a fixed location, that intensifies at night and that is characterised by a pounding or stabbing sensation; darkened or purple facial complexion; blue or purplish lips; purple fingernails; changes in the appearance of the hair, eyes and other external body parts; a purple tongue with red or purple spots at the sides; and a wiry (xian) or choppy (se) pulse. Besides trauma, there are additional causes of blood stasis, such as cold and heat, but they are not relevant to the subject at hand and will not be discussed here.

Treatment principles and approaches for blood stasis

Flaws points out that the main treatment principles for blood stasis due to external trauma are to move the blood, open stasis, move qi and stop pain.⁴¹ The main formula that Flaws prescribes for blood stasis in the upper Burner is *Xue Fu Zhu Yu Tang*. This formula moves the blood, opens blood stasis, moves Liver qi and opens the channels. It is appropriate for the treatment of symptoms such as chest and hypochondriac pain, chronic and stubborn headaches that recur in a fixed location, chronic belching, the feeling of choking while drinking, dry heaves, depression accompanied by the feeling of body heat, palpitations,

insomnia, restless sleep, restlessness, extreme mood swings, a feeling of heat in the evening, a purple tongue with red or purple spots at the sides and a wiry (xian) or choppy (se) pulse. For further explanation of the formula, see Bensky and Barolet.⁴²

The above mentioned treatment principles were used in this case in addition to conventional psychiatry.

She described a pattern of avoidance, introversion, difficulty expressing herself, anhedonia (the inability to feel pleasure) and difficulty interacting with people.

Case report

In July 2009, S., a 55-year-old, highly educated, native Israeli woman, went to see a psychiatrist in a public mental health clinic. Married with three children, S. was a professional teacher who had worked throughout her adult life until the previous year. She had no history of hospitalisation or psychiatric treatment. She had been perfectly capable of functioning in every aspect of her personal, family and work life, having coped with and adapted to difficulties throughout her life. The daughter of Holocaust survivors, she had taken care of her now-deceased parents during difficult periods of their lives. She described herself as optimistic throughout her life, happy, not inclined to complain, with a tendency to make light of problems. She had often volunteered to help others.

A year before her first visit to the psychiatrist, she had been hit by the opening door of a truck as she was walking to work, and suffered a head injury. At the time, she felt terrified and feared for her life. She described feeling a gripping pain and almost fainting. It is unclear whether she actually did lose consciousness for a short time. A few minutes after the accident, she experienced derealisation (the feeling that one's surroundings are not real) and loss of balance, which she described as 'the earth moving beneath her feet.' On the day of the accident, and again the following day, she went to the emergency room complaining of headaches, loss of balance and nausea. She was checked by an internist, and blood tests and a brain CT-scan (computer tomography) were taken. The results were normal, and she was released.

However, following the accident, she felt a noticeable change in her mood and ability to function. She reported that she no longer felt like 'herself', that she had turned into a different person. Her close family, friends and associates concurred that she had changed. She often remembered the accident, both spontaneously and in reaction to stimuli such as blinking lights and police cars. These thoughts were accompanied by fear, derealisation and the feeling that something heavy was falling on her head and injuring her. Other persistent post-trauma experiences included a feeling of floating and depersonalisation (the feeling of

being detached from one's body), loss of balance (as if something around her had changed), impatience with a variety of stimuli, frustration, tension and nervousness. She ruminated on the accident and felt uncomfortable, anxious and depressed. She also experienced a change in her sleep patterns: immediately following the accident she slept for many hours throughout the day. Later, the duration of her sleep normalised, but its quality deteriorated. She awoke in the morning feeling tired and groggy, and the tiredness persisted throughout the day.

S. reported that she had turned from a tolerant person into someone who was nervous, impatient and angry, even with the people closest to her. Her relationship with her husband deteriorated significantly, including their sexual relations, which caused her feelings of guilt. She felt that her husband and children were behaving toward her as if she were ill, which angered her even more.

She described a pattern of avoidance, introversion, difficulty expressing herself, anhedonia (the inability to feel pleasure) and difficulty interacting with people. She said 'nothing excites me', and described a significant reduction in her participation in social activities. She began to perform tasks listlessly and some days she did nothing at all. She said, 'It is difficult for me to explain why, but things that were once interesting to me and enjoyable have lost their appeal. We always had a subscription to plays, but this year I cancelled it because I had no desire to go. I cancelled appointments with friends with various excuses, and I did not enjoy those in which I did participate. I felt as if an invisible wall had come down in front of my face between me and whoever I was with.' She reported often finding herself daydreaming. Following the trauma, she stopped buying new clothes and did not go on vacation. Activities that were formerly trivial - such as hosting, cooking, baking, daily household chores - had become 'a project'. She described difficulty in concentrating, organising daily activities, forgetfulness and a significant reduction in 'beautifying the house'. She also stopped reading, while she had formerly been an avid reader. She described being in a bad mood most of the day. Finally, she felt guilty about these changes. There was, however, no expression of nihilistic or suicidal feelings.

During the year, she experienced several anxiety attacks - one of which caused her to go to the hospital to seek help. She received treatment with benzodiazepine (alprazolam, 0.25 milligrams, and oxazepam, 10 milligrams) for temporary relief and saw a psychologist several times afterwards. She received Eye Movement Desensitisation and Reprocessing (EMDR) treatment, and learned relaxation techniques, but felt no relief.

In addition to the emotional difficulties, several somatic problems arose during the year, including smelling unpleasant odours that came and went unrelated to a feeling of anxiety. She underwent a general neurological exam, but nothing unusual was found. Her blood pressure

and blood sugar levels deteriorated.

She felt extremely hesitant, frightened and ashamed to see a psychiatrist, even though it was recommended. Only after she understood that there was no other treatment available did she agree to go.

Psychiatric examination

During her intake interview she was sad and tense, she cried often, and looked as if she was suffering. Despite her depressed mood and lowered concentration, she spoke logically and demonstrated normal perception of reality and organised thinking. She described her post-trauma experiences as those of penetration (unwanted exposure to others) and avoidance, as well as reporting depressive feelings, but displayed no nihilistic or psychotic tendencies. She showed great preoccupation with the accident and the resulting distress, and was having intrusive vivid memories of it. A PDS (Post-traumatic Diagnostic Scale) questionnaire to determine the level of the post-traumatic disorder resulted in a grade of 30 out of 51, which is considered medium high.

Psychiatric diagnosis

The psychiatric diagnosis was that of post-traumatic disorder of a medium to high level with a depressive component and post-concussion syndrome, which adversely affected all of her functioning. Her tendency to minimise her complaints and to take on too many responsibilities created an atypical image. Regular psychiatric appointments were recommended, along with CBT and continued medical and neurological follow-ups.

Results of initial treatment

S. continued regular psychiatric therapy. She was treated with several anti-depressant medicines of different families, including the following, accompanied by daily dosage: escitalopram up to 20 milligrams, duloxetine up to 60 milligrams, venlafaxine xr up to 1,050 milligrams, minocipram up to 50 milligrams and mirtazepine up to 30 milligrams. These were combined with anxiolytics: oxazepam 10 milligrams and alprazolam 0.5 milligrams, with a mood-stabilising anti-epileptic drug, carbamazepine 100 milligrams, to control the unpleasant odours that she was experiencing. In addition, she had CBT treatment. The treatments not only did not bring relief, but also caused side-effects.

After four months, it was decided, together with the patient, to combine the medical treatment consisting of mirtazepine (up to 30 milligrams/day) and oxazepam (10 milligrams/day) with TCM treatment that would consist of herbal medicine and acupuncture. These combined treatments were done collaboratively, with practitioners updating each other by means of regular telephone conversations and emails. Psychiatric follow-ups were also continued.

TCM treatment

When S. arrived at our TCM clinic, she said that, despite the medical treatment she had received for the trauma following her head injury, she felt no relief. As a consequence, she had to stop working and was only partially able to function at home. In addition to the symptoms that she had described to the psychiatrist, it was observed that her face, especially her lips and the tips of her fingers and toes, were purplish in colour, and that her hands and feet were cold to the touch. Her tongue was purplish with a thin white fur and her pulse was deep and wiry.

This examination led to the diagnosis of blood and qi stagnation in her upper burner. The treatment principle was to move qi and blood in the upper burner, alleviate pain and calm the spirit. The main acupuncture points that were treated in each session were: Taichong LIV-3 with Hegu L.I.-4, to move and regulate qi and blood throughout the body, reduce pain and calm the spirit; Neiguan P-6 with Tanzhong REN-17 to move and regulate qi and blood in the chest and the upper burner; Sanyinjiao SP-6 to support the movement of qi, tonify blood and calm the spirit; and Yintang M-HN-3 to calm the spirit. Every second treatment, Shenmen HE-7 was added in order to support the calming action of the treatment. The patient received acupuncture once a week for three months.

The herbal formula was *Xue Fu Zhu Yu Tang* with no modification, in granules, three grams twice daily.

Semen Persicae (*tao ren*) 12g
 Carthami Flos (*hong hua*) 9g
 Angelicae sinensis Radix (*dang gui*) 9g
 Chuanxiong Rhizoma (*chuan xiong*) 4.5g
 Paeoniae Radix rubrae (*chi shao*) 6g
 Cyathulae Radix (*chuan niu xi*) 9g
 Bupleuri Radix (*chai hu*) 3g
 Platycodvi Radix (*jie geng*) 4.5g
 Aurantii Fructus (*zhi ke*) 6g
 Rehmanniae Radix (*sheng di huang*) 9g
 Glycyrrhizae Radix (*gan cao*) 3g

Results of integrative treatment

A week after the integrative medical treatment had started, S. began to feel relief from her symptoms. Her condition continued to improve from week to week. After one month, S. returned to work. After three months of integrative treatment, her headaches and feelings of dizziness and imbalance almost completely disappeared. Furthermore, the unpleasant odours that she experienced also disappeared.

A coordinated decision was made with the psychiatrist to gradually decrease the Western medication until it was completely terminated. S. continued monthly psychiatric and TCM follow-ups for six months. She reported great satisfaction with the integrative treatment.

Five years later, in a telephone conversation, S. reported that she still felt physical and emotional relief, was generally stable, with no symptoms of stress or increased pressure. She was able to continue with her normal lifestyle, both in her family and at work. In addition, she gave her permission to publish this case report anonymously.

Discussion

This case report addresses several issues regarding the integrative treatment of psychiatric disorders. In the literature on conventional treatments, the terms 'integrative' and 'complementary' medicine are used interchangeably, whereas 'alternative' medicine refers to any medical treatment or tradition that falls outside the scope of conventional medicine. As in this case, there is often a progression from the use of conventional medicine to the use of integrative medicine. In this case report we describe such a development. At first the patient was reluctant to consult a psychiatrist. She later went for psychiatric help and was treated with several medications with unsatisfactory results. She was then referred to a TCM practitioner, who she saw without discontinuing conventional treatments, with a successful outcome. Most patients who ask for complementary (i.e. 'integrative') medicine use some kind of combined treatment. Reasons to avoid combined treatment include: financial limitations, organisational considerations, availability issues and the subjective personal meaning that each modality has for the patient (for example S.'s reluctance to ask for psychiatric help). However, the final phase of this patient's treatment was a combination of psychiatric, psychotherapeutic and TCM treatments.

Two questions arise at this point:

1. What explains the very positive results achieved in this case?
2. In what sense was this treatment integrative?

The answer to the first question can only be speculative. Nevertheless, two basic possibilities come to mind – the success of the treatment may be due to the effect of TCM, or it may result from the combination of treatment modalities. It seems highly plausible to assume that in such a complex case it was the combination that provided the solution.

The second question needs a larger space for discussion, however we can assume that integration of treatments occurred as a result of the communication between the three therapists, and maybe, the introspection of the patient herself. This means that integration of treatment modalities can take place through the therapists' concerted efforts, but also within the patient's inner world. In this case, the communication between therapists concerned practical issues only. For example, therapists could decide to split

the target symptoms between the various modalities, such as medications for sleep and TCM for agitation and headaches. One may assume that a greater (and perhaps more rapid) synergistic effect of the treatment could take place if meaningful issues were an essential part of the therapists' communication, both with the patient and with each other. For example, the psychiatrist may see and treat bursts of anger as symptoms which need to be removed, whereas the TCM practitioner may relate to bursts of anger as an expression of disharmony, which needs to be harmonised by enabling open movement of energy and restoring balance. Each of these different interpretations may resonate with the patient's psyche and open new perspectives for positive change.

Conclusion

We presented a case of complex-pathology head injury, PTSD and depression, which showed very poor response to conventional psychiatric and psychotherapeutic treatment. Only after the addition of TCM treatment did an improvement take place, and it was a dramatic one. We conclude that the integration of treatments was meaningful and successful. Greater attention should be devoted in the future to improving the cooperation and collaboration of the various practitioners involved in the care of patients with PTSD.

Contributing authors

Shay Ravid, certified practitioner in Acupuncture and Chinese Herbs, Rotem Center, Kibbutz Dalia, Israel. Contact email: rotem.center@gmail.com

Shai Shorer MSW, PhD, Faculty of Social Science, Louis and Gabi Weisfeld School of Social Work, Bar Ilan University, Israel

Dr. Alon Reshef, M.D., Director of the Department of Psychiatry, Emek Medical Center, General Hospital, Afula, Israel

Dr. Elad Schiff, M.D., Head of the Department of Internal Medicine B, Bnai-Zion Medical Center, Haifa, Israel; Chair of the Department of Complementary/Integrative Medicine; Law & Ethics, International Center for Health, Law and Ethics, Haifa, Israel

Dr. Maitri Shacham, MSW, PhD, DMT, Outpatient Psychiatric Unit, Emek Medical Center, General Hospital, Afula, Israel

Leslie Cohen, M.A. Cultural Anthropology, Writing Consultant

Dr. Boaz Bloch, M.D., Department of Psychiatry, Head of the Outpatient Psychiatric Unit, Emek Medical Center, General Hospital, Afula, Israel

Endnotes

- 1 Van der Kolk et al. (2007), pp.3-23
- 2 Fluckiger-Hawker (1999), p.87
- 3 Friedman et al (2014), pp.3-20
- 4 Friedman (2015)
- 5 McFarlane et al. (2007), pp.24-46
- 6 Friedman et al. (2014), pp.3-20
- 7 Shalev (2007), pp.207-223; Van der Kolk et al. (1991), pp.346-335
- 8 American Psychiatric Association (2013); Weathers & Keane (2007), pp.107-121
- 9 American Psychiatric Association (2013)
- 10 American Psychiatric Association (2013)
- 11 Friedman et al. (2011), pp.737-749
- 12 Kessler et al. (1995), pp.1048-1060
- 13 Kessler et al. (2005), pp.592-602
- 14 Kilpatrick et al. (2013), pp.537-547
- 15 Breaslau (2009), pp.198-210; Bonanno & Mancini (2012), pp.74-83; Norris & Sloan (2014), pp.100-120
- 16 Keane et al. (2006), pp.161-167
- 17 Bleich et al. (2003), pp.612-20
- 18 Norris & Sloan (2014), pp.100-120
- 19 Heron-Delaney et al. (2013), pp.1413-1422
- 20 Vogt et al. (2014), pp.146-165
- 21 Andrews et al. (2008), pp. 511-522
- 22 Brewin et al. (1991), pp.346-335
- 23 Ozer et al. (2008), pp.52-73
- 24 Andrews et al. (2000), p.69-73; Dohrenwend et al. (2008), pp.133-141; Iversen et al. (2008), pp.511-522; Shalev (2009), pp.687-704
- 25 Tanev et al. (2014), pp.261-270
- 26 Yurgil et al. (2014), pp.149-157
- 27 Bryant, R. (2011), pp. 251-262
- 28 Tanev et al. (2014), pp.261-270
- 29 Bonanno et al. (2011), pp.511-535
- 30 Tedeschi et al. (2011), pp.137-144; Tedeschi & Calhoun (2004), pp.1-18; Zerach et al. (2013), pp.91-98
- 31 Solomon & Dekel (2007), pp.303-312; Dekel et al. (2012), pp.94-101; Zoellner & Maercker (2006), pp.626-653; Tsai et al. (2015), pp.165-179
- 32 Schubert et al. (2016), pp.469-486
- 33 Friedman et al. (2014), pp. 3-20
- 34 Foa et al. (2009); American Psychological Association (2017)
- 35 Shalev et al. (2017), pp.2459-2469
- 36 Kim et al. (2013), pp. 1-12
- 37 Watts et al. (2013), pp.541-550
- 38 Flaws, B. (1995), pp.2-7
- 39 Liao et al. (2016)
- 40 Flaws (1995), pp.8-26; Flaws & Lake (2007), pp.228
- 41 Flaws (1995), pp.26
- 42 Benschky & Barolet (1990), pp.314-315
- 43 The terminology evolved over time. First, the term 'alternative' medicine appeared, then the term 'complementary' medicine, which implied the mutual acceptance of two parallel systems. The term 'integrative' appeared later, which refers to combined, rather than parallel, treatment with the two modalities.

References

- American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders*, 5th Ed. American Psychiatric Association Publishing: Washington, DC
- American Psychological Association (2017). *Clinical Practice Guideline for the Treatment of Posttraumatic Stress Disorder (PTSD) in Adults*. Retrieved 10.10.18 from <https://www.apa.org/about/offices/directorates/guidelines/ptsd.pdf>
- Andrews, B., Brewin, C. R., Rose, S. et al. (2000). Predicting PTSD symptoms in victims of violent crime: The role of shame, anger, and childhood abuse, *Journal of Abnormal Psychology*, 109, 69-73. doi:10.1037/0021-843X.109.1.69
- Bensky, D. & Barolet, R. (1990). *Chinese Herbal Medicine Formulas & Strategies*, Eastland Press: Seattle
- Bleich, A., Gelkopf, M. & Solomon, Z. (2003). Exposure to terrorism, stress-related mental health symptoms, and coping behaviors among a nationally representative sample in Israel, *JAMA: Journal of the American Medical Association*, 290, 612-20. doi: 10.1001/jama.290.5.612
- Bonanno, G. A. & Mancini, A. D. (2012). Beyond resilience and PTSD: Mapping the heterogeneity of responses to potential trauma, *Psychological Trauma: Theory, Research, Practice, and Policy*, 4(1), 74-83. doi: 10.1037/a0017829
- Bonanno, G. A., Westphal, M. & Mancini, A. D. (2011). Resilience to loss and potential trauma, *Annual Review of Clinical Psychology*, 7, pp.511-535. doi: 10.1146/annurev-clinpsy-032210-104526
- Breaslau, N. (2009). The epidemiology of trauma, PTSD, and other post-trauma disorders, *Trauma, Violence & Abuse*, 10(3), pp.198-210. doi: 10.1177/1524838009334448
- Brewin, C. R., Andrews, B. & Valentine, J. D. (2000). Meta-Analysis of Risk Factors for Posttraumatic Stress Disorder in Trauma-Exposed Adults, *Journal of Consulting and Clinical Psychology*, 68, 748-766. doi:10.1037/0022-006X.68.5.748
- Bryant, R. (2011). Post-traumatic stress disorder vs traumatic brain injury, *Dialogues in Clinical Neuroscience*, 13, 3, pp.251-262
- Davidson, J. R. & Foa, E. B. (1991). Diagnostic issues in posttraumatic stress disorder: Considerations for the DSM-IV, *Journal of Abnormal Psychology*, 100, pp.346-335. doi: 10.1037/0021-843X.100.3.346
- Dekel, S., Ein-Dor, T. & Solomon, Z. (2012). Posttraumatic growth and posttraumatic distress: A longitudinal study, *Psychological Trauma: Theory, Research, Practice, and Policy*, 4(1), pp.94-101. doi: 10.1037/a0021865
- Dohrenwend, B. P., Turner, J. B., Turske, N. A. et al. (2008). War-related posttraumatic stress disorder in Black, Hispanic, and majority White Vietnam veterans: The roles of exposure and vulnerability, *Journal of Traumatic Stress*, 21(2), pp.133-141. doi: 10.1002/jts.20327
- Flaws, B. (1995). *The Concept and Treatment of Blood Stasis in TCM*, Blue Poppy Press: Boulder
- Flaws, B. & Lake, J. (2007). *Chinese Medical Psychiatry: A Textbook and Manual*, Blue Poppy Press: Boulder
- Fluckiger-Hawker, E. (1999). *Urnamma of Ur in Sumerian Literary Tradition*. Editions Universitaires Fribourg Suisse: Fribourg
- Foa, E. B., Keane, T. M., Friedman, M. J. & Cohen, J. A. (2009). *Effective treatments for posttraumatic stress disorder: Practice guidelines from the International Society for Traumatic Stress Studies*. 2nd Edition. Guilford Publication: New York
- Foa, E. (2012). Cognitive behavioural treatments have long-term benefits in female rape survivors with post-traumatic stress disorder, *Evidence Based Mental Health*, ebmhental2012100764
- Friedman, M. J. (2015). *Posttraumatic and acute stress disorders*. Springer International Publishing: Cham
- Friedman, M. J., Resick, P. A., Bryant, R. A. et al. (2011). Classification of trauma and stressor related disorders in DSM-5, *Depression and Anxiety*, 28, 9, pp.737-749. doi: 10.1002/da.20845
- Friedman, M. J., Resick, P. A. & Keane, T. M. (2014). PTSD from DSM-III to DSM-5: Progress and Challenges. In Friedman, M. J., Keane, T. M. & Resick, P. A. (Eds.), *Handbook of PTSD*, 2nd Edition. Guilford Press: New York & London
- Heron-Delaney, M., Kenardy, J., Charlton, E. et al. (2013). A systematic review of predictors of posttraumatic stress disorder (PTSD) for adult road traffic crash survivors, *Injury*, 44, 11, pp.1413-1422.
- Iversen, A. C., Fear, N. T., Ehlers, A. et al. (2008). Risk factors for post-traumatic stress disorder among UK Armed Forces personnel, *Psychological medicine*, 38, pp.511-522. doi: 10.1017/S0033291708002778
- Keane, T. M., Marshall, A. D. & Taft, C. T. (2006). Posttraumatic stress disorder: Etiology, epidemiology, and treatment outcome, *Annual Review of Clinical Psychology*, 2, pp.161-167. doi: 10.1146/annurev-clinpsy.2.022305.095305
- Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R. & Walters, E. E. (2005). Lifetime prevalence and age of onset distributions of DSM-IV disorders in the National Comorbidity Survey

- Replication, *Archives of General Psychiatry*, 62, pp.592–602. doi:10.1001/archpsyc.62.6.593
- Kessler, R.C., Sonnega, A., Bromet, E., Hughes, M. & Nelson, C. B. (1995). Posttraumatic Stress Disorder in the National Comorbidity Survey, *Archives of General Psychiatry*, 52, pp.1048–1060. doi: 10.1002/1099-1298 (200011/12)10:6:3.0.CO;2-F
- Kilpatrick, D. G., Resnick, H. S., Milanak, M. E. et al. (2013). National estimates of exposure to traumatic events and PTSD prevalence using DSM-IV and DSM-5 criteria, *Journal of Traumatic Stress*, 26, 5, pp.537–547. doi: 10.1002/jts.21848
- Kim, Y.-D., Heo, I., Shin, B.-C. et al. (2013). Acupuncture for Posttraumatic Stress Disorder: A Systematic Review of Randomized Controlled Trials and Prospective Clinical Trials, *Evidence-Based Complementary and Alternative Medicine*, pp.1–12. <https://doi.org/10.1155/2013/615857> last accessed 09.01.2019
- Liao Jianquan, Wang Jie, Liu Yongmei et al. (2016). Modern researches on Blood Stasis syndrome 1989–2015: A bibliometric analysis, *Medicine (Baltimore)* <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5266019/> last accessed: 04.01.2019
- McFarlane, A. C. & Van-Der Kolk, B. A. (2007). Trauma and its challenge to society. In Van der Kolk, B. A., McFarlane, A. C. & Weisaeth, L. (Eds.). *Traumatic stress: The effects of overwhelming experience on mind, body, and society*, 2nd Ed., Guilford Press: New York, NY
- Norris, F. H. & Sloan, L. B. (2014). Epidemiology of trauma and PTSD. In Friedman, M. J., Keane, T. M. & Resick, P. A. (Eds.), *Handbook of PTSD*, 2nd Ed., Guilford Press: New York & London
- Ozer, E. J., Best, S. R., Lipsey, T. L. et al. (2008). Predictors of posttraumatic stress disorder and symptoms in adults: a meta-analysis, *Psychological Bulletin*, 129, 1, pp.52–73. doi:10.1037/0033-2909.129.1.52
- Resick, P.A., Williams, L. F., Suvak, M. K. et al. (2012). Long-term outcomes of cognitive-behavioral treatments for posttraumatic stress disorder among female rape survivors, *Journal of consulting and clinical psychology*, 80, 2, 201–210.
- Schubert, C.F., Schmidt, U., Rosner, R. (2016). Posttraumatic Growth in Populations with Posttraumatic Stress Disorder—A Systematic Review on Growth-Related Psychological Constructs and Biological Variables, *Clinical Psychology and Psychotherapy*, 23, 6, pp.469–486, <https://doi.org/10.1002/cpp.1985>
- Shalev A. Y. (2007). PTSD - a disorder of recovery?, In Kirmayer, L., Lemelson, R. & Barad, M. (Eds.). *Understanding Trauma: Integrating biological clinical and cultural perspectives*. Cambridge University Press: Cambridge, UK
- Shalev, A. Y. (2009). Posttraumatic stress disorder and stress-related disorders, *The Psychiatric Clinics of North America*, 32, pp.687–704. doi:10.1016/j.psc.2009.06.001
- Shalev, A., Liberzon, I. & Marmar, C. (2017). Post-Traumatic Stress Disorder, *New England Journal of Medicine*, 376, 25, pp.2459–2469 <https://doi.org/10.1056/NEJMr1612499> last accessed 09.01.2019
- Solomon, Z. & Dekel, R. (2007). Posttraumatic stress disorder and posttraumatic growth among Israeli ex-POW's, *Journal of Traumatic Stress*, 20, 3, pp.303–312 doi:10.1002/jts.20216
- Tanev, K. S., Pentel, K. Z., Kredlow, M. A. et al. (2014). PTSD and TBI co-morbidity: scope, clinical presentation and treatment options, *Brain injury*, 28, 3, pp.261–270
- Tedeschi, R.G. (2011). Posttraumatic growth in combat veterans, *Journal of Clinical Psychology in Medical Settings*, 18, 2, pp.137–144 doi: 10.1007/s10880-011-9255-2
- Tedeschi, L. G. & Calhoun, R. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence, *Psychological Inquiry*, 15, 1, pp.1–18. doi: 10.1207/s15327965pli1501_01
- Tsai, J., El-Gabalawy, R., Sledge, W. H., Southwick, S. M. & Pietrzak, R. H. (2015). Posttraumatic growth among veterans in the USA: Results from the National Health and Resilience in Veterans Study, *Psychological Medicine*, 45, 1, pp.165–179 doi:10.1017/S0033291714001202
- Van der Kolk, B. A. & McFarlane, A. C. (2007). The black hole of trauma. In Van der Kolk, B. A., McFarlane, A. C. & Weisaeth, L. (Eds.). *Traumatic stress: The effects of overwhelming experience on mind, body, and society*, 2nd Ed. Guilford Press: New York & London
- Van der Kolk, B. A., Weisaeth, L. & Van der Hart, O. (2007). History of trauma in psychiatry. In Van der Kolk, B. A., McFarlane, A. C. & Weisaeth, L. (Eds.). *Traumatic stress: The effects of overwhelming experience on mind, body, and society*, 2nd Ed. Guilford Press: New York & London
- Vogt, D. S., King, D. W. & King, L. A. (2014). Risk pathways for PTSD – making sense of the literature. In Friedman, M. J., Keane, T. M. & Resick, P. A. (Eds.). *Handbook of PTSD*, 2nd Ed. Guilford Press: New York & London
- Watts, B. V., Schnurr, P. P., Mayo, L., Young-Xu, Y., Weeks, W. B. & Friedman, M. J. (2013). Meta-analysis of the efficacy of treatments for posttraumatic stress disorder, *Journal of Clinical Psychiatry*, 74, 6, pp.541–550. <https://doi.org/10.4088/JCP.12r08225>
- Weathers, F. W. & Keane, T. M. (2007). The Criterion A problem revisited: Controversies and challenges in defining and measuring psychological trauma, *Journal of Traumatic Stress*, 20, pp.107–121. doi:10.1002/jts.20210
- Yurgil, K. A., Barkauskas, D. A., Vasterling, J. J. et al. (2014). Association between traumatic brain injury and risk of posttraumatic stress disorder in active-duty Marines, *JAMA psychiatry*, 71, 2, pp.149–157
- Zerach, G., Solomon, Z., Cohen, A. et al. (2013). PTSD, resilience and posttraumatic growth among ex-prisoners of war and combat veterans, *The Israel Journal of Psychiatry and Related Sciences*, 50, 2, pp.91–98
- Zoellner, T. & Maercker, A. (2006). Posttraumatic growth in clinical psychology - A critical review and introduction of a two component model, *Clinical Psychology Review*, 26, 5, pp.626–653. doi:10.1016/j.cpr.20