

The Role of Massage Therapy in Post Traumatic Stress Disorder

John Copeland

“The modality of touch serves first to make human survival possible
and then to make life meaningful”

Mary survives a car accident that occurs during a storm. She develops intrusive flashbacks of the pressure of the seatbelt on her chest at the time of the accident, symptoms which have persisted long after the physiological damage to her chest muscles has healed. She comes to Massage Therapy complaining of chest pain for which she has no clear explanations. She is also baffled by the fact that the chest pain gets worse when it rains. At the time of the accident, it was raining heavily. The intense fear and pain experienced and encoded in her amygdala was encoded with the accompanying sensory awareness of rain. Now she has a conditioned response:

A sensory stimulation (especially rain) reminds her (however subtly and unconsciously) of the car accident and triggers chest pains. In addition at the moment she is flooded with the memory, she again experiences many of the sensations that occurred during the accident; sweating, racing heart, intense fear and shallow breathing.

Mary now actively finds ways to avoid stimulus that triggers these floods of stress hormones. She stays indoors when it rains, she takes alcohol (or pills) or works extremely long hours and looks for any other way to reduce or ignore the unwanted and frightening sensations. Mary has Post Traumatic Stress Disorder.

*Extract from 'Recovering Body and Soul from Post Traumatic Stress Disorder': Bernard & Brazelton
By Pamela Pitch and Trish Dryden. <http://www.automassage.org/journal/soul.html>*

The massage therapist interested in helping sufferers of post traumatic stress disorder must first take some considerable time out to educate themselves about the condition:- its causes, manifestations and treatment to decide what ways (if any) massage can help. Literature gathered should be retained as a library for his own reference – and referred to often if it is to be of any use. Much detail has to be omitted in a short essay but an examination of the issues here may prompt others to develop an interest or seek out more.

Sarah has discussed the historical perspective so let us now look at a simple definition:-
Traumatic stress disorder encompasses **exposure to events or the witnessing of events** that are **extreme and/or life threatening** and the **person reacts with extreme horror, fear or helplessness.**

Type 1 refers to brief incidents (e.g. accident or explosion).

Type 2 refers to prolonged exposure (e.g. sexual abuse) or repeated exposure (e.g. fire or ambulance crew).

Protection from the condition

No-one can completely protect themselves from traumatic experiences. There is no telling who will be affected, or at what particular trauma, because not everyone will react to the experience in the same way. A key to our understanding of PTSD is that **the emotional responses will differ**. To some who (even to their own surprise) switch on helplessness, terror or fear, the subsequent **psychological injury** can be severe and prolonged.

Being a psychological injury, PTSD can manifest itself in behavioural and avoidance problems and, because our mind is involved, it can also mimic mental illness. The effect can last from days to years or a lifetime.

People who react to trauma with PTSD are no weaker than others; neither are they 'going crazy'. What is happening to them is part of a set of common symptoms and problems that are connected with being in a traumatic situation.

Diagnosing PTSD

Only a doctor or medical professional can make the diagnosis. The A.P.A.D. Manual volume iv sets out 6 main criteria with 19 sub criteria, some of which have associated time scales involved. Diagnosis also involved interviews of the sufferer and his family or others and using any one of several psychological profile questionnaires. Mental illness has also to be excluded, so diagnosis is not for the message therapist to perform. The therapist should however know the criteria and keep it with his PTSD literature.

Understanding the Symptoms

Generally speaking, the person's response to trauma can be divided into at least 4 categories:

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|---------------|---|
| Emotional | terror, guilt, irritability, depression |
| Cognitive | poor concentration, confusion, self blame, flashbacks |
| Biological | insomnia, nightmares, exaggerated startle response |
| Psychosomatic | i.e. behavioural (avoidance, social withdrawal, lack of trust, substance abuse) |

The symptoms often occur with other psychiatric conditions referred to as co-morbidity (e.g. personality disturbances or substance abuse, especially alcohol).

Part of the Massage Therapist's self education includes learning about memory and how it works, the brain - its anatomy and learning sub systems, and the limbic emotional system. This information is readily available in books and the Internet. A rudimentary understanding is all that is necessary at our level but it is a great help to our understanding of what is going on in the client's mind and body. All this helps, if it becomes necessary, to educate sufferers about aspects of the condition.

The Brain

Consider for example the development or growth of our brain. To take the evolutionary model (and dispensing with some of the expert's Sunday names), we learn of three phases of brain development.

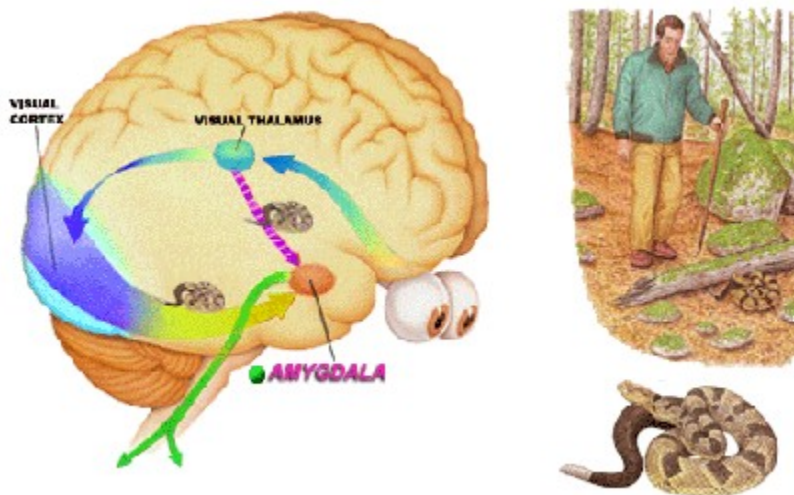
- Reptilian is ancient and primitive – but it worked so well we kept it as it was. It is instinctive – warms with the sun and rests in the dark (sleep). It is territorial, might is right.
- Mammalian grew next. It has organised centres providing control over instinct. It has the amygdala where it stores emotions including fear based experiences (more about this later.)
- Human the massive neocortex was next forming 85% of our brain mass, it controls the earlier evolutionary 'brains'. It is very intricate and not fully understood. In essence it has two hemispheres – the left is logical and systematic and controls our right body. The right hemisphere is emotional and pictorial, controls the left body. An actor delivering a monologue uses his left-brain for language and rules of grammar and his right for emotional content.

We use all three in harmonious co-operation but we are stuck with our brain as it has evolved and now functions.

Fear Based Memory

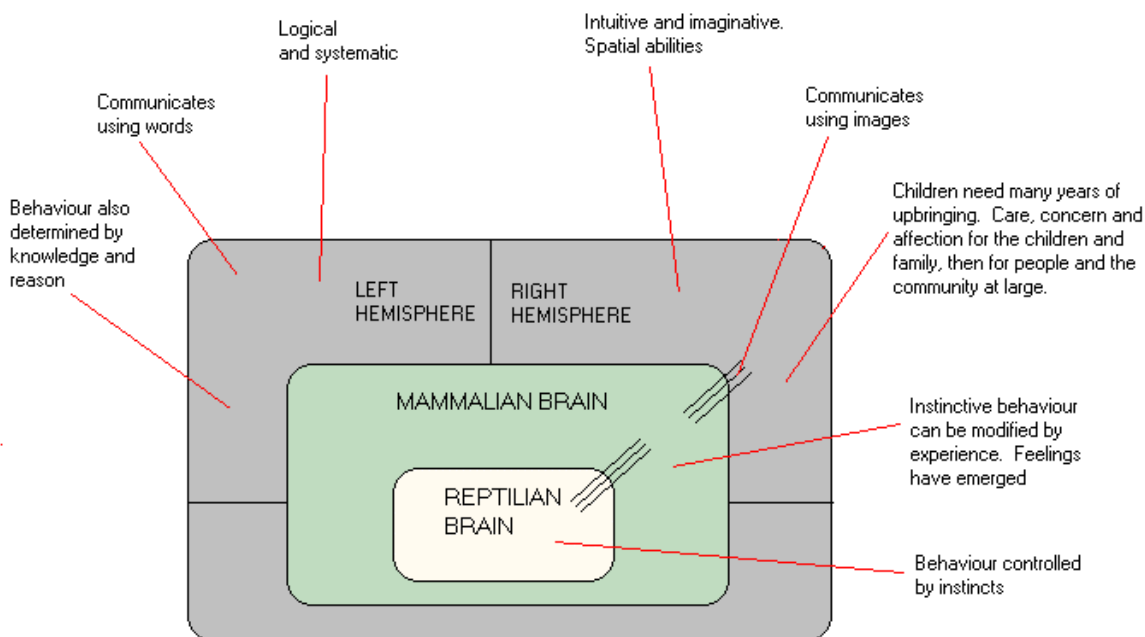
Understanding our **fear based** experiential memory also helps our understanding of PTSD. Rapid and accurate **recall of these experiences** play an important part in survival. This makes sense when you consider that man is a hunter, gatherer and defender who lives in the industrialised space age.

A hunter encountering a branch like object across his path will gasp with fright, stop, turn and run in **helpless panic** as a **reflex action**, long before the word 'snake' enters his rational thinking cortex.



Stored in the limbic system is fear based experience, from the last time he met a snake. This has sparked from the amygdala and fired fight or flight – also as a reflex. All this before his rational cortex has worked out what was going on.

Hence, survival using the 3 phases of brain development



HUMAN BRAIN

A Television Analogy

Within our amygdala we store sights, sounds, sensations, emotions and fears in electrical impulse form, as part of the limbic system of the brain. In PTSD - much like a live televised event – it is here and now and on screen with no reference to time or space. The controller of programmes (neocortex) however wants to put that image on tape, filed and dated and stored in the archives. If not, we will forever have to watch, say the Queen's Coronation (a first live outside broadcast on TV.)

In PTSD we suffer **sensation overload** and **psychological injury** ensues. We find the Coronation breaking in on our normal viewing and what's worse, the controller (cerebral cortex) can't make himself understood to the outside broadcast producer (amygdala) who keeps sending the signals as if they were live (real time flashback). The sufferer **feels all the horrors** of the event as if it were **in the here and now**. He virtually relives it all over again. Worse still the electrical signals are going all over the place (the hormonal cascade) and strange things happen. Metaphorically the central heating goes on, the blinds open, the washing machine and tumble drier inexplicably go on (panic attacks, anger, avoidance, etc.,). Would you believe it the outside broadcast producer is sending his material along the good sound land line but the producer (neocortex) has a cell phone and the signal keeps breaking up. There is asymmetry between the amygdala and the cortex neural pathways. It is going to take a long time with much patient perseverance (psychotherapy) before the live TV is timed and dated and filed away. (Rationalised out of the fear based experience loop into narrative memory).

Acute and chronic conditions

We can suffer acute and chronic PTSD, where the disturbance lasts for 2 days to 4 weeks from the event; acute stress disorder would be diagnosed.

In cases of acute or chronic PTSD the event and it's subsequent disordered effects may overwhelm an individual's **sense of safety** and **security** leaving them feeling vulnerable and insecure **in their environment** and **within their own body**. Overcoming the insecurity allows rational thinking to begin making sense of disturbing feelings.

Some PTSD sufferers develop joint and muscle pain for no obvious reason but massage therapists know that a lot of emotion is held in muscle and soft tissue and its release by massage will also release the pent up emotion with it.

However, we should be aware that intrusive body sensations such as those delivered by massage are not for the immediate crisis stage of a trauma. Once talk therapy has helped the client establish some degree of narrative memory and experience of safety, then, massage may be given.

The literature I have read suggests that no one massage style is better or more effective than another.

Critical Incident Debriefing

This could be seen as post event first aid for people caught up in traumatic experiences. Most organisations offer this service to staff that have experienced an incident within 36 – 48 hours of the occurrence. They meet as a group and briefly, with counsellors present, discuss fears, or it may be frustration or misunderstandings with each other - all within a safe and secure environment. This 'one off debrief' is known to be significant in reducing the subsequent development of PTSD. Obviously, in huge scale disasters, such organised debriefing would not be an option.

Treating PTSD

The literature I have read suggests that presently no one form of treating PTSD has been shown to be superior to others. The four core ways of treatment have a common denominator in that they take place in a safe supporting environment.

- Education – of sufferers and their family, explaining symptoms, sharing books and articles which all help to give meaning to the symptoms and engender a sense of control over them.
- Social Support/Integration – family therapy and group psychotherapy, reduces isolation and sufferers learn adaptive coping strategies.
- Clinical Intervention – therapy to help sufferers work through their feelings, e.g. cognitive behaviour therapy, exposure to fear producing memories/flashback etc.
- Holistic Health – physical activity, nutritional, spirituality, or humour – where the clinician functions as a teacher and coach, offering encouraging support as a person attempts to heal himself or herself.
- Pharmacological – this treatment of PTSD seeks to find a suitable medication to affect the multi faceted symptoms of the condition. Some can reduce the high alert state or regulate anxiety or panic attacks. Others may reduce avoidance or explosiveness while depression and re-experiencing of trauma can be affected by other drugs. It is important to note that pharmacotherapy alone, as sole source of intervention, is rarely sufficient to provide complete remission.

Massage in treating PTSD

Sharing with the other modalities it is in the area of holistic treatment that massage has a role to play. Providing a 'coach like' listening ear and a safe secure environment with the additional benefits of touch contact (communicating care and comfort).

Continued on page 28

The Role of Massage Therapy in Post Traumatic Stress Disorder *Continued from page 6*

Body and Mind as separate entities

Renee Descartes, a mediaeval father of modern medicine, was required to make a deal with the Pope of his day in order to get the authority for scientific dissecting of bodies. This required an orthodoxy that separated the mind and soul from the body. We still have this today with psychiatry on the one hand and scientific medicine on the other. In truth the mind and body are one, no more so, than in the case of PTSD.

The injured mind has caused the sympathetic nervous system to become dominant with resultant physical symptoms from continuing hormonal releases. Massage would endeavour to raise the profile of the parasympathetic nervous system.

Touch receptors all over the body and proprioceptive sensors, golgi tendon organs and muscle spindle cells can all be worked by massage techniques, the intention being that as they feed information to the sensory cortex of the brain through the parasympathetic nervous system, they may cause the sympathetic system to be calmed down, becoming less strident, thus balance may be restored.

In attempting this, there are certain issues we must be aware of.

Psychological Injury

First do no harm. So it follows that we must beware of re-wounding the client during the release of emotions held in muscle tightness/spasm. This must come when the client is ready for it and willing to visit that area.

The literature suggests that Swedish massage can be as effective as the most intricate cranio-sacral release.

Consider a robbery victim –

A female petrol attendant is held up at knife point whilst the till is robbed by a hooded lone male attacker. She is terrified by the knife and believes she will die. She has her arm twisted up her back before being locked in a staff room whilst the robber escapes. She suffers symptoms of PTSD and seeks massage for a sore arm and shoulder muscles.

For the therapist to work on her arm without preparing her would be to risk psychologically injuring her because as muscle tension releases, she re-lives the attack **and its terror**.

The treatment must be considerate and patiently applied. It is recommended that both the treatment and the continuum of the treatment each have 3 stages.

3 Stage Approach - Treatment and Continuum

Treatment Session

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| 1 st stage | A routine introduction (15 minutes) - a sequence of massage strokes having a repetitive kinaesthetic sameness to say that this is the introduction (not probing tight areas). |
| 2 nd stage | Experimental phase (15/30mins) - under client's consensual guidance. (In our example this might commence at the fingers and hand and only move up the arm in subsequent treatments). The therapist must resist self indulgence by seeking to promote a response which shows him that something is working – he must wait for the client's willingness and permission to move on. |
| 3 rd stage | A re-engagement phase (15 minutes) - where another set of routine moves kinaesthetically remind the client that the experimental phase is over and the therapy is concluding. |

Continuum

The treatment continuum also has 3 stages (time scales will vary).

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|-----------------------|--|
| 1 st stage | Introduction (e.g. 2/4 weeks) - building trust and confidence. |
| 2 nd stage | Experimental (e.g. 4/6 weeks) – indicated when the client begins to discuss thoughts and emotions and visits emotional release. |
| 3 rd stage | Re-engagement (e.g. 2/4 weeks) – indicated when the client begins to talk of other issues. Shows they are able to re-engage in other areas of life. |

This time framework is not set in stone and must be dictated by the client's needs, not those of the therapist. What is important is trust, confidentiality and the feeling of security. At the conclusion - much like a fledgling leaving the nest - the therapist must allow the client to move on and sever ties with therapy.

Other treatment considerations

The therapist must be aware of his or her role as a facilitator and ideally part of a team approach. There should be counsellors, welfare and medical staff, all co-operating for the good of the client. Certainly this will be the case for therapists considering working with the emergency services. Massage cannot “do it all” and the therapist should not work in isolation from the team.

There is a risk of the therapist being overwhelmed by the reactions and demands of the client with PTSD. Self care awareness is very important.

Take for example an ABC of self-care:

Awareness

Be attuned to one's needs, limits, emotions and resources. Heed all levels of awareness and sources of information. Cognitive, intuitive and somatic. Practice mindfulness and acceptance.

Balance

Maintain balance amongst attributes, especially work, play and rest. Inner balance allows attention to all aspects of oneself.

Connection

Connect to oneself, to others and to something larger. Communication is part of connection and breaks the silence of unacknowledged pain. These connections offset isolation and increase validation and hope.

Support for the therapist

In practice self-care is important then and it is best practice for the massage therapist, when dealing with PTSD, to work with self imposed supervision. This should be organised with a more experienced therapist to whom he reports regularly for guidance. Alternatively support could substitute for supervision; here 4 or 6 therapists agree to meet regularly as support for each other. Confidentiality can still be respected but issues and problems can be discussed and advice sought. A problem shared is a problem halved.

The unexpected

This can always arise. Surprise manifestations of PTSD during treatment. Inappropriate behaviour issues when least expected and how to remain focused on clients' needs. All of these should be thought through and a strategy put into place before they should happen. The amount of time needed may be a surprise too, the literature suggests the time needed may take up to one year from introduction to the conclusion of the treatment continuum.

Useful tips

- Keep a library of material and refer to it often.
- Keep a list of support groups.
- Be prepared to be patient.
- Don't carry the burden alone.
- Be massaged regularly.
- Retain testimonials of clients for the encouragement of others.

CONCLUSION

If Freud said "the task of psychotherapy is to transform neurotic misery into ordinary unhappiness" then the task of massage in PTSD is:-

- To provide a secure, confidential and safe environment of care.
- To communicate that care through the formal touch of massage - transforming extreme terror into ordinary fear and extreme helplessness into ordinary coping.
- To restore balance between the actions of the sympathetic nervous system and the parasympathetic nervous system.
- To release somatic emotions from soft tissue at the appropriate time.
- To re-unite mind and body with calming touch and so make people feel 'at home' in their own bodies.

RESOURCES AND WEB SITES

Book. *Post Traumatic Stress Disorder. The invisible injury.* 2001 edition. David Kinchin ISBN 0-9529121-3-9

Web **Recovering Body and Soul from Post Traumatic Stress Disorder.** Pamela Fitch and Trish Dryden, Ontario, Canada

<http://www.amtamassage.org/journal/soul.html>

Can Massage Therapy be an effective therapeutic modality in the treatment of trauma related symptoms.

Susan McConnell. School for New Learning, Chicago.

<http://www.mc-mlmhs.org/cultures/issueessay/massage.htm>

News release – combat supports MOD findings

http://www.brettlles.com/combat%20stress/combat_june28.htm

What makes us singularly humans.

Sylvia Cardoso & Renato Sabbatini. State University Campus, Brazil.

<http://www.epub.org.br/cm/n10/editorial-n10-i.htm>

TUC. Stress at work tops safety poll

<http://www.v128.dial.pipex.com/ntuc69.htm>

Remembering and Forgetting: The Brain Mechanisms of Memory

Sylvia Helena Cardoso, Ph.D. State University Campus, Brazil.

<http://www.epub.org.br/cm/N01/memo/remembering.htm>

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Overview, emotions, memory and the brain,

Mian Hou., Research assistant. Centre for Neural Science New York University. <http://www.cns.nyu.edu/home/ledoux/overview.html>

How the human brain developed and how the human mind works.

Manfred M. Davidson

<http://www.solboram.org/articles/humind.html>

Alienation of Affection.

James W. Prescott Ph.D. from Psychology today 1979.

<http://www.humanist.de/violence/prescott/pt/article.html>

Traumatic Stress: An overview.

Joseph S. Volpe Ph.D. BCETS American Academy of Experts in Traumatic Stress.

<http://www.aeets.org/arts/art1.htm>

Those who can, do. Those who can't, bully.

Tom Field, author.

<http://www.successunlimited.co.uk/PTSD>

Mind, Brain and Behaviour, lecture 2. The nervous system.

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