In recent years, psychologists, as well as other mental health and allied health professionals, have rediscovered the potential value of complementary and alternative medicine (CAM) for health and well-being. One such CAM modality is massage therapy. This article examines the evidence for the value of applications of massage therapy for posttraumatic stress disorder (PTSD), trauma, and related conditions, including anxiety.

**Key words:** massage therapy, posttraumatic stress disorder (PTSD), depression, anxiety, health psychology.

**Introduction.** Massage therapy has been utilized for thousands of years and is broadly distributed around the globe. Calvert’s historical survey, using data from art, oral tradition, and ethnographic and other written accounts, notes the presence of massage in the ancient worlds of Babylonia, Egypt, China, India, Greece, and Rome, as well as in various “shamanic and priestly” traditions, from Australia and Africa, to North, Central, and South America and the Pacific Islands. Throughout history massage and touch healing have been employed towards healing a wide range of various conditions, including resolving spiritual issues, encouraging social binding, aiding appetite and digestion, and facilitating childbearing. From the standpoint of modern Western medicine and psychology however, massage therapy is not a panacea for all diseases and ills, though recent research has documented its utility for a number of conditions, including reducing prematurity and enhancing development in infants, reducing pain, and improving immune function [e.g., 9; 18].

After relative neglect in the first half of the twentieth century, psychotherapists and researchers now are investigating the utility of massage, as well as that of other alternative techniques, as helpful, cost-effective healing modalities for modernity for treatment of various psychological disorders [1; 2]. This article focuses on the scientific evidence regarding massage therapy for anxiety, posttraumatic stress disorder (PTSD),
trauma, and related conditions, including depression, of interest to psychologists and other mental health professionals.

While a range of definitions exist, one well-known textbook defines massage as “the systematic manual or mechanical manipulations of the soft tissues of the body by such movements as rubbing, kneading, pressing, rolling, slapping, and tapping, for therapeutic purposes” [3. P. 3]. Typically modern massage therapists utilize their hands and fingers, and perhaps their forearms, and in some types of touch therapy, their elbows or even knees. While there are hundreds of massage styles and techniques, ranging from deep tissue work to superficial touch or hands-off, ‘energy’ healing, most research, including the work in this article, focuses upon Swedish-style massage, associated with 19th century Swedish medical gymnastics educator Pehr Ling and Dutch practitioner Johan Mezger, which “employs traditional manipulations of effleurage, petrissage, vibration, friction, and tapotement” [3. P. 944]. Education and credentialing for massage therapists vary around the globe, and in the United States, forty-five of fifty states have passed laws to regulate massage therapy, most states requiring a minimum of 500 hours of education and successful performance on a national examination. Usually a massage therapy session is of about one hour in length, and often involves the use of a special massage table that is cushioned for comfort. Clients are typically draped with sheets for modesty and warmth. As an alternative to table massage, specialized massage chairs are available to permit on-site seated massage therapy at mobile locations, such as a client’s workplace or at a remote field location, for instance, when providing care in a crisis situation, such as after a natural disaster.

Some Methodological Considerations. There are a number of existing assessment measures of touch behavior. Weiss and Niemann [22] enumerate measures for parent-child touch, touch between health professionals and patients, and adult-adult touch, as well as assessments that include touch subscales, such as questionnaires focusing upon harsh or negative parenting practices (including corporal punishment, physical and sexual abuse), and upon both affectionate communication and conflict between adult romantic partners, such as married couples. There are far fewer assessments designed especially for massage therapy, though several exist, such as the ATOM (attitudes towards massage scale) [13]. Among the most frequently utilized measures, such as in the prolific published work on massage therapy by Tiffany Field and colleagues, for anxiety and depression, are the Spielberger State-Trait Anxiety Inventory and the Beck Depression Inventory [9].

Massage Therapy for Anxiety. There is ample evidence for the effects of massage therapy (MT) on anxiety. In a meta-analysis, Moyer, Rounds, and Hannum [14] found that “across 21 MT RCTs that used 1,026 total research participants, the average recipient of single-dose MT had a post-treatment level of state anxiety that was lower than 64% of control group participants, an effect considered small to medium according to statistical conventions in the behavioral sciences” [6. P. 155]. Conventional table massage is not the only type of massage therapy to provide anxiety reduction benefits. Engen and colleagues [7] found that one 15 minute chair massage per week for 10 weeks was associated with reductions in stress and anxiety among a sample
of Mayo Clinic nurses during work hours. The chair massage offered the advantage that busy workers did not need to disrobe or require the extended time away from work to receive a full hour table massage. Outcome measures included the Perceived Stress Scale, the Smith Anxiety Scale, and a symptom visual analog scale. Notably, not only massage recipients benefit from massage. One recent study found that one massage may impact the mental state of the massage therapists offering massage as well. Jensen and colleagues [12] found reductions in anxiety for therapists who provided a one hour massage to a massage client when compared with a control group who sat in a room for one hour.

**Massage Therapy for PTSD and trauma.** Posttraumatic Stress Disorder (PTSD) is a severe type of anxiety disorder that follows experiencing a psychological trauma. The nature of the trauma is variable, but may include war experiences, an automobile accident, physical or sexual assault, a natural disaster, among other events. Since Posttraumatic Stress Disorder (PTSD) is considered a type of anxiety disorder by the Diagnostic and Statistical Manual of Mental Disorders [5], it makes sense that some of the research on stress and anxiety utilizing the Spielberger State-Trait Anxiety Inventory and related assessments with non-clinical samples and with other stress disorders has some relevance for work involving PTSD and trauma. However, there is a relative paucity of research on massage therapy specifically for PTSD and trauma, especially given the estimate that about 7—8% of persons will suffer from PTSD during their lives at some time [15].

One of the few published studies to explicitly examine the effects of massage therapy on alleviating posttraumatic stress was conducted by Field and colleagues [10]. Sixty children (aged 6 to 11) with classroom behavior problems after Hurricane Andrew in the USA were randomly assigned either to a massage group or to a control group. Scores on the Posttraumatic Stress Disorder Index indicated the participants were experiencing severe stress post-Hurricane. The children assigned to the massage group were assessed as having lower anxiety and depression scores, and behavioral observations indicated that children in this group were more relaxed. Additionally, children in the massage group reported greater happiness and less anxiety and had lower levels of salivary cortisol, biological evidence that supports the self-report and behavior observation data.

Though notable, further research should examine the potential effects of massage therapy for posttraumatic stress in adult samples, and for samples that have experienced different types of stressors (e.g. war, automobile accident, assault), and should also focus on replication studies that explore effect size and robustness. Simple internet web searches for the terms PTSD and massage therapy yield many results, yet few of these articles are scientific studies, and fewer represent what may be considered rigorous research on this topic. Nevertheless, massage therapy is routinely suggested for clients with PTSD both by psychotherapists and by massage therapists.

There is a special and urgent need for research on massage therapy in crisis zones, such as follow natural disasters. Conducting such research involves a number of challenges, such as the possible requirement of working in harm’s way or under difficult
living conditions, and working with language, cultural, and political barriers abroad on short notice. In addition, ethical concerns may center on issues regarding the balance between the immediate need of clients to receive treatment in the field, and the need of the research and practice community to gain valuable data that will enhance understanding of the possible efficacy of massage therapy. Such data are crucial to understanding how to plan best for the unfortunate, but inevitable crises of the future. Massage therapy may offer an economical and feasible supplement to existing systems of care, and may be especially valuable in regions where medications, psychiatrists, and psychotherapists are often unavailable. While many anecdotal reports by helping professionals and by massage therapy clients suggest that this healing modality is effective for posttraumatic stress, further investigation is warranted, in particular to determine when (and when not) massage therapy may be utilized [19; 20].

For instance, is massage therapy as effective for all populations in all circumstances? Do men and women, children, adults, and elders, and persons from all religions, nations, and cultures, and with all types of personal histories with touch, experience massage therapy in the same way? As an example, a massage therapy session for a healthy middle class woman by a female therapist may be a healing experience for one person, but a similar massage therapy session for a middle class woman who has experienced sexual trauma by a male massage therapist may lead to further traumatizing and be counterproductive to the healing process.

Though only a handful of such studies exist, recently researchers have begun to more systematically examine massage therapy for adults with a history of sexual trauma. Price [17] notes that several studies find that massage therapy is “highly acceptable to women in recovery from sexual trauma [as] evidenced by high recruitment and retention rates and by data gathered in qualitative interviews in which participants report satisfaction with their [massage therapy] experience” [17. P. 166]. Price [16] found that in a sample of 12 women in which 7 met the baseline criteria for PTSD at the beginning of her study, only 3 women met the criteria at a three month follow-up assessment after the conclusion of a standardized massage therapy intervention, suggesting this healing modality is an effective supplement to conventional talk psychotherapy. Price [17] also reports clients noted increased self-awareness and self-care as a result of the intervention and, in her more recent work, she also finds a reduction in dissociation.

While massage therapy is a potentially effective healing modality as part of a treatment plan for persons with histories of sexual trauma, further research with larger and more diverse samples (e.g. males and females as clients and therapists) must be conducted. Massage therapists ought to take special care to ensure the psychological safety of such clients (for instance, respecting client requests that certain body regions not be massaged), to be able to maintain professional contact with other helping professionals as needed, and to be ready to make appropriate referrals as necessary.

**Further Considerations.** Massage therapists are not trained psychologists and should not conduct psychotherapy. In addition, as part of their education, massage therapists may have had only one day of class or even no classes on psychological
disorders. While massage education may be changing, many massage therapists are not trained in research methods and thus may not be able to assess published research recommendations for massage therapy treatment of various clinical conditions of relevance to psychology.

Given the prevalence of sexual abuse, it is not surprising that most massage therapists may expect to see some of these clients professionally. Scurlock-Durana [21], a credentialed massage therapist, with thirty years of experience with the population, suggests three key areas of importance: First, she emphasizes the need to be able to “listen with compassionate neutrality.” Second, she notes it is vital to “be fully present” for a client by being psychologically grounded oneself and by maintaining healthy boundaries (such as time boundaries for a massage therapy session’s start and end). Third, she notes the importance of “utilizing noninvasive touch” [21, p. 58]. In her research on massage therapy for sexual trauma, Price [17] adds that such work “demands a careful and cautious approach” and that massage therapists ought to be “prepared to check on the recipient’s level of comfort frequently... [and] take care to stay present during the session” [17, p. 170]. Werner [23], a massage therapist who has served as head of the Massage Therapy Foundation and who has written a popular textbook on pathology for massage therapists, writes that such clients may have “problematic reactions to touch. It is vital that these clients feel safe and in control within a massage environment” [23, p. 176]. Requesting feedback about the type of touch, amount of pressure, and location of touch may be some ways to help to ensure a client feels in control of the session rather than being controlled by the massage session.

Future Directions and Conclusions. Significant evidence supports the effectiveness of massage therapy for reduction of anxiety, and some recent research suggests that massage therapy may be a valuable healing modality for reducing the effects of posttraumatic stress and trauma as well. However, future work must further investigate the consistency, size, and nature of the effects of massage therapy for such conditions, and in particular examine its effects in a range of diverse populations around the globe. Particular interest should also focus upon understanding the underlying physiological mechanisms associated with the effects of massage therapy [e.g., 11]. Researchers, psychotherapists, and massage therapists should also communicate about best practices, and about ethical issues that may arise during massage therapy sessions [e.g., 4]. Psychologists considering referring to massage therapists are strongly encouraged to learn about this healing modality, by reading several of the recent publications written with that aim in mind [e.g., 2; 8; 19], through conversation with potential massage therapist colleagues, and by experiencing therapeutic massage themselves as recipients.

To conclude, while not a panacea, massage therapy offers more than a luxury spa treatment for the rich and famous. Its effects on mental states, as well as its physiological effects, are of considerable relevance and significance to psychologists and other helping professionals working with clients with issues related to trauma, anxiety, and posttraumatic stress.
REFERENCES

МАССАЖ КАК СРЕДСТВО ТЕРАПИИ
ПОСТТРАВМАТИЧЕСКОГО СТРЕССОВОГО РАССТРОЙСТВА,
ТРАВМЫ И ТРЕВОГИ

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В последние годы психологи, а также специалисты в области психического здоровья и смежных медицинских профессий вновь обращают внимание на потенциал нетрадиционной и альтернативной медицины для поддержания здоровья и благополучия. Одним из видов такой медицины является массажная терапия. В данной статье рассматривается целесообразность применения массажа для терапии посттравматического стрессового расстройства (ПТСР), травмы и сопутствующих состояний, включая тревогу.

Ключевые слова: массажная терапия, посттравматическое стрессовое расстройство (ПТСР), депрессия, тревога, психология здоровья.