Integrating the Manual Stimulation of Acupuncture Points into Psychotherapy: A Systematic Review with Clinical Recommendations

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Title Page

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Abstract

The integration into psychotherapy of protocols utilizing the stimulation of acupuncture points by tapping on them, a form of acupressure, is increasingly appearing in clinical practice. An underlying premise is that the procedure generates activating and deactivating signals which, in real time, impact brain areas aroused by a client's focus of attention. This makes it possible for a therapist to rapidly facilitate cognitive and neurological changes by shifting the wording and images that accompany the tapping. The approach has been controversial, with both enthusiastic proponents and adamant critics. A total of 309 peer-reviewed, English-language journal articles have focused on this development. The aim of this paper is to put these reports into context using a "hierarchy of evidence" model. In a hierarchy of evidence, judgments about the efficacy of a clinical approach are formed according to the relative strength of the types of studies supporting the method. The hierarchy of evidence for psychotherapies that utilize tapping on acupuncture points includes 28 systematic reviews or meta-analyses, 125 clinical trials, 24 case studies, 26 reports describing systematic observations, 17 mixed method clinical trials that included a tapping component, and 88 papers addressing clinical procedures, theory, mechanisms, or related issues. Consistency in positive outcomes following the tapping of selected acupuncture points for a range of conditions was identified and weaknesses in study designs discussed. Mechanisms of action are briefly considered and suggestions for integrating acupoint tapping protocols into clinical practice are presented. The paper concludes that while further research is needed, the growing evidence base documenting the effectiveness, speed, and durability of the approach appear promising.

Public Health Significance Statement

Integrating techniques from acupressure into conventional psychotherapy is, according to claims by those using this approach, a catalyst for stronger and more rapid outcomes with a wide range of conditions. The protocol has been the subject of more than 300 peer-reviewed journal articles. This review finds that the evidence showing the approach to be effective, rapid, and durable appears promising, and it poses questions that still need to be investigated for additional validation.

Keywords: acupressure, Emotional Freedom Techniques, energy psychology, tapping, Thought Field Therapy

Introduction

Proponents of psychotherapeutic protocols that utilize the stimulation of acupuncture points (acupoints), usually by tapping on them, claim that integrating the procedure with conventional psychotherapeutic methods increases the speed, efficacy, and durability of psychotherapy for a range of conditions. This paper examines that assertion. Specifically, should psychotherapists be encouraged, based on existing evidence, to consider integrating the stimulation of acupoints into their practices? The study uses a "hierarchy of evidence" model to examine 309 peer-reviewed journal papers exploring acupoint tapping for psychological and related conditions. This database includes 125 clinical trials investigating acupoint tapping protocols, with 69 of them being randomized controlled trials (RCTs) and the other 56 being outcome studies that did not include a control condition.

Tapping on Acupuncture Points for Psychotherapeutic Change

Acupoint tapping as a component of psychotherapy was introduced as Thought Field Therapy (TFT) in the early 1980s by psychologist Roger Callahan (Gallo, 2004). The approach was met with strong professional skepticism and even derision (McCaslin, 2009; McNally, 2001), yet its use in clinical settings has been growing. A credible estimate has placed the number of therapists using acupoint tapping modalities in the "tens of thousands" (Leskowitz, 2016, p. 181), and a free online training book by one of the method's originators has been downloaded "more than 1 million times" (p. 181). The major professional organization in the U.S., the Association for Comprehensive Energy Psychology, has 1,200 dues-paying members. The approach has been utilized not only by psychotherapists but also by other health care professionals, athletic teams, performance coaches, business consultants, and disaster relief workers (Feinstein, 2022a).

Controversies

A review of the controversies the approach had been engendering noted that strong skepticism is related, in part, to the fact that tapping on one's face and body while repeating a series of verbalizations looks patently silly (Feinstein, 2009). It seemed counter-intuitive that tapping on the skin could impact serious psychological symptoms, particularly when no scientifically plausible explanations were offered when the approach was introduced. Further doubts trace to the initial but lasting impressions in the clinical community about a therapy that was receiving popular attention for seemingly far-fetched claims, such as the "five-minute phobia cure" (Callahan, 1985), with no systematic evidence backing the claims. Another source of skepticism has involved confusion about the use of the word "energy" in "energy psychology" (Feinstein, 2022b). Energy psychology is an umbrella term for therapies that combine contemporary psychotherapeutic procedures with techniques, such as acupoint tapping, that purportedly work with the body's energy systems.

The Body's Energy Systems

In the most basic sense, atomic particles with continuously changing electrical valences are at the foundation of the chemical reactions in every cell of the body. Ions enter and leave cell

membranes; electrical impulses travel through the nervous system; measurable electromagnetic fields surround and permeate every organ. The nervous system uses electrical signals to control not only breathing, walking, speaking, swallowing, digesting, and sleeping, but also thinking and learning. With approximately 100 billion neurons in the human brain, each connected to up to 10,000 other neurons, the nervous system is an incomprehensibly complex electromagnetic and electrochemical network operating through the wiring of the body's nerve cells (Herculano-Houzel, 2012). Diagnostic procedures in modern medicine (e.g., magnetic resonance imaging, electrocardiograms, electroencephalograms, and positron emission tomography) are based on assessments of the body's shifting electromagnetic activities.

Energy psychology as an emerging discipline is relatively new, but references to physical energies in describing psychological processes are not. Freud explained his theories using energetic concepts such as libido, repression, cathexis, and catharsis (The et al., 2018), originally conceiving of them in terms of the physics of his time (Maxwell's thermodynamics). Energetic concepts remain central in the theories of many contemporary psychotherapies (Livneh, 2022; Marlock et al., 2015). Notions of "energy" also play a central role in time-honored healing systems worldwide. Ninety-seven cultures have been identified whose healing traditions refer to a "human energy field" (White & Krippner, 1977).

Acupuncture

The cross-over between acupoint tapping and the word "energy" in energy psychology traces to the practice of acupuncture. Acupuncture is believed to stimulate the balance and flow of energies that are, in Traditional Chinese Medicine, considered essential to health. While the reception of acupuncture in the West has been equivocal, a vast literature has been developing.

An early but influential analysis of acupuncture concluded that "the question about whether it works remains controversial" (Ernst, 2006, p. 133), suggesting that placebo may account for the positive clinical findings. The most rigorous response to the questions raised by Ernst came 11 years later with a comprehensive analysis of acupuncture studies. The review, conducted by the Australian Acupuncture and Chinese Medicine Association, drew upon 136 systematic reviews and meta-analyses to examine pooled data from more than a thousand peer-reviewed RCTs (McDonald & Janz, 2017).

Applying stringent standards such as those of the Cochrane GRADE criteria for assessing risk of study bias and the Australian National Health and Medical Research Council criteria for assessing "levels of evidence," the quality of evidence for the efficacy of 122 medical conditions that had been investigated in the various reviews was evaluated. Some evidence was found for beneficial effects of acupuncture in treating 117 of the 122 conditions, and "moderate" to "high quality" evidence was found for 46 conditions. These included asthma, hypertension, irritable bowel syndrome, osteoarthritis, postoperative nausea, constipation, stroke rehabilitation, and various types of pain. The study showed that acupuncture is also effective with several psychiatric diagnoses, including anxiety and insomnia, as well as when used as an adjunct to medication in the treatment of chronic depression and schizophrenia.

Acupressure

While lightly holding acupuncture points is the most familiar form of acupressure, tapping on acupoints is the variation that is most frequently used in energy psychology protocols. The published research on acupuncture is far more extensive than that on acupressure, but a growing literature suggests that acupressure is also effective with a range of emotional conditions. For instance, Chen et al. (2022) conducted a systematic review and meta-analysis of 27 studies and found that acupressure significantly reduced patient anxiety ($p < 0.001$). Au et al. (2015) performed a meta-analysis of five RCTs that showed a greater overall reduction of anxiety in acupressure treatments than in sham controls. Gach and Henning (2004) include conditions such as anxiety, depression, addiction, anger, grief, guilt, shame, jealousy, trauma, and self-doubt in their popular book on acupressure for emotional self-healing.

Though acupressure uses touch and acupuncture uses needles, the core approach shared by both methods is the stimulation of acupoints. Acupoints are believed to be distributed along pathways known as "meridians." Because the meridian lines, as mapped on acupuncture charts, do not correspond with blood vessels, nerve pathways, or the lymphatic system, the anatomical basis of the meridians has been questioned. Evidence has been found, however, that the meridians are contained within the body's connective tissue (Langevin & Yandow, 2002). In a recent study (Li et al., 2021), tracer dyes, injected at acupuncture points, generated linear migrations closely aligned with the meridian charts, supporting both an anatomical basis for the meridians and previous evidence that they operate within the connective tissue.

What Energy Psychology Adds to Acupressure

Differing from the conventional uses of acupressure, energy psychology protocols introduce imaginal exposure and cognitive interventions within a context that is explicitly oriented toward emotional healing and psychological development. As will be discussed below, the manual stimulation of acupuncture points is believed to send, to specific brain areas, activating and deactivating signals that are beneficial in relation to the psychological issues being addressed. While acupoint tapping protocols have their own treatment manuals and can be considered independent modalities, they are most frequently integrated into the clinician's existing psychotherapeutic framework (Feinstein, 2016).

A Typical Acupoint Tapping Session

In a typical tapping-based energy psychology treatment session, following building rapport, taking a case history, and other preparatory dialogue, the client will mentally attune to a scene, emotion, sensation, or statement related to a target issue and tap on a prescribed set of acupoints (Church, 2018). The mental focus might, for instance, be on a troubling memory, a self-defeating belief, a problematic emotion, a sensation such as tightness in one's stomach, an unwanted response to an external trigger, or a desired goal. The operating assumption, supported by a range of laboratory studies that are discussed below, is that the tapping on selected acupoints will (a) methodically reduce the client's sense of distress as deactivating signals are sent to areas of the brain associated with excessive fear, anger, or other problematic responses and (b) increase activation in executive brain regions associated with adaptive responses such as planning and stress management.

Prior to and following each round of tapping, the client rates emotional upset about the problem or a facet of it on a 0-to-10 Subjective Units of Distress (SUD) scale (after Wolpe, 1958). Based on this quick assessment of the immediate effects of the tapping, another round of tapping is conducted with the therapist guiding the client to keep the same focus or shift to a new focus. This new focus may highlight any of numerous aspects of a given problem or goal (e.g., memories, self-evaluations, safety assessments, beliefs, confidence, emotions, sensations). Each is addressed during additional rounds of tapping (generally requiring one to two minutes each) until the emotional charge associated with that aspect of the problem has been desensitized. This is verified by having the client give another SUD rating on the memory or issue involved. Additional somatic techniques, designed to shift the focus, produce a centering effect, and facilitate information processing may be introduced at various points during a session. A brief video illustrating an acupoint tapping protocol in the treatment of a height phobia provides a glimpse into the relatively unusual procedures (http://phobiacase.EnergyPsychEd.com, retrieved October 5, 2021).

The Research Base

Acupoint tapping is the most widely used of the methods that fall within energy psychology (Gallo, 2004). For the first two decades after the introduction of acupoint tapping protocols, not a single RCT had been published in a peer-reviewed journal. In 1999, the Association for Comprehensive Energy Psychology (ACEP) was founded, with the promotion of research into energy psychology being one of its objectives. ACEP currently maintains the central research database on energy psychology, available through its website (www.energypsych.org/researchhierarchy). Nearly all of the clinical trials of energy psychology conducted to date have focused on protocols that include acupoint tapping, particularly TFT and the Emotional Freedom Techniques (EFT), TFT's most popular derivative.

Methodology

The present study examines the existing research on the psychotherapeutic applications of acupoint tapping contained in the ACEP database as of March 25, 2022. The ACEP Research Committee keeps the database current with studies of acupoint tapping and related topics by (a) regularly searching major indexing services, such as PubMed, PsycINFO, Medline, and ERIC, as well as more specialized databases, (b) following leads from its membership, and (c) scanning the citations in new publications. A total of 309 peer-reviewed acupoint tapping studies, review articles, and theoretical papers are listed and categorized. Several searches of the four major indexing services mentioned above were conducted by the current author while deciding which databases to rely upon for the current study. Search terms used were "Emotional Freedom Techniques," "Thought Field Therapy," and "acupoint tapping." In the most recent of these searches, October 26, 2021, the single RCT that was not listed in the ACEP database was an advance online publication that had not yet gone to print, suggesting that the ACEP list is relatively complete. Rather than build a separate catalog for the current study, the ACEP database was selected as the source to analyze because it is already comprehensive, has been aggregated into a single resource from multiple streams of information, and is readily available.

Hierarchies of Evidence

The scientific literature on acupoint tapping protocols was examined according to a "hierarchy of evidence." A hierarchy of evidence is an organizing model that ranks the relative strength of the findings obtained from scientific research about a clinical intervention (Guyatt et al., 2008), often portrayed as a pyramid.

The first formal model for a hierarchy of evidence was proposed in the *Journal of the American Medical Association* in 1995 to differentiate among clinical recommendations that are based on weak vs. strong evidence (Guyatt et al., 1995). More than 80 hierarchies for evaluating medical evidence have since been proposed worldwide (Blunt, 2015). The GRADE (Grading of Recommendations, Assessment, Development, and Evaluation) system (https://gradepro.org/product/#about, retrieved January 22, 2022) is among the most widely accepted, with more than 100 organizations using or at least endorsing it, including the World Health Organization, the American College of Physicians, the UK National Institute for Health and Care Excellence, the Canadian Task Force for Preventive Health Care, and the Colombian Ministry of Health.

General agreement can be found among the various rating systems that meta-analyses and systematic reviews are at the top of evidence-based hierarchies, followed by randomized controlled trials (RCTs), and then observational studies, with anecdotal reports and expert opinions being at the bottom of the hierarchy (Straus et al., 2005). Criticisms of evidence hierarchies have focused on methodological shortcomings as well as reservations about the primacy given to meta-analyses (Stegenga, 2011) and RCTs (Cartwright, 2007). Gugiu et al. (2013) noted that the approach has also been "challenged on the basis that existing guidelines failed to properly define key terms, weight the merits of certain non-randomized controlled trials, and employ a comprehensive list of study design limitations to render evaluative conclusions" (p. 3). Nonetheless, evaluation systems that are rooted in evidence-based hierarchies have been evolving (University of Canberra, 2021), and current renditions provide a basis for comparison that are in wide use.

A Hierarchy of Evidence for Acupoint Tapping Protocols

The studies found in the ACEP database have been organized as a hierarchy of evidence that is consistent with trends in the way hierarchies of evidence are generally ordered (see Figure 1). As the ACEP database has grown over the past decade, the current author has participated in the ranking process. Studies representing the greatest scientific rigor are at the top of the pyramid and those representing the least reliable or generalizable evidence are at the bottom. Theoretical papers are not included on the pyramid but are found in the ACEP database. These reflect expert opinions, which are generally assigned minimal weight as sources of empirical evidence.

Figure 1

This study (a) reviews the current body of evidence in terms of the categories of the hierarchy, (b) highlights major findings that can be derived from the existing evidence, (c) discusses weaknesses in study designs, (d) presents plausible mechanisms of action, and (e) offers recommendations for integrating acupoint tapping protocols into clinical practice.

The Categories of Evidence

Each category is defined and the number of acupoint tapping studies found in each category follows. Discussion and analysis of many of the individual studies can be found in the meta-analyses and systematic reviews that are at the top of the hierarchy. The tallies of the studies in the ACEP database are shown, by category, in Table 1. While the ACEP database encompasses the full range of energy psychology studies and protocols, including dissertations and conference proceedings, only peer-reviewed journal articles pertinent to the subset specifically examining acupoint tapping protocols are considered in this report. Discussion of each category of evidence follows.

Meta-Analyses and Systematic Reviews

This category includes systematic evaluations of a number of studies, often focusing on a single technique for a specific condition. These evaluations critique the design, methodology, statistics, and conclusions of those studies. They allow the clinical community to come to inferences that cannot be reached based on individual studies. Within this category, the ACEP database lists five meta-analyses of acupoint tapping studies, one focusing specifically on anxiety, another on depression, and another on PTSD. Six other systematic reviews of acupoint tapping studies, which do not meet the criteria for a meta-analysis, are also included. Another 17 systematic reviews, including eight additional meta-analyses, have compared studies investigating a variety of treatments for the same condition, with acupoint tapping protocols being among the therapies evaluated.

Randomized Controlled Trials (RCTs)

This category includes peer-reviewed studies of acupoint tapping using established pre- and post-intervention measures, assessed in relation to a comparison condition, such as another treatment, a placebo intervention, or a wait-list group. Assignment to the treatment being investigated and the comparison condition must have been done randomly. In well-designed RCTs, the person(s) involved in assessing the outcomes of the interventions are “blinded,” prevented from knowing which subjects were in which treatment condition. RCTs are a benchmark for clinical trials because the effects of each treatment condition can be objectively compared and, if the study is adequately designed, can be generalized to specified populations with reasonable confidence. The ACEP database lists 69 RCTs of acupoint tapping therapies.

Clinical Trials with Standardized Measures but No Comparison Group

This category includes peer-reviewed studies that used established pre- and post-intervention assessments with multiple clients, but they do not include a comparison condition. Comparison conditions control for non-specific therapeutic factors that influence outcomes, such

as placebo, installation of hope, or spontaneous improvements. The ACEP database lists 56 uncontrolled clinical trials.

Clinical Case Studies

Clinical case studies are formal peer-reviewed reports that use established pre- and post-intervention assessments with one subject and detail the outcomes on one or more treatment variables as a centerpiece for examining the intervention. A case series analyzes the results of several individual cases aggregated together. The ACEP database lists 24 clinical case study or case series papers focusing on the psychotherapeutic use of acupoint tapping.

Systematic Observations

This category includes informal peer-reviewed reports describing the course of treatment using acupoint tapping protocols with multiple subjects but without the use of established pre- and post-intervention assessments. The ACEP database lists 14 such reports. Another form of systematic observation is based on phenomenological studies (most often from interviews or surveys) that collect and analyze practitioners' or clients' observations and experiences. The ACEP database lists 12 such studies.

Anecdotal Reports

The ACEP database refers to "several hundred anecdotal reports" indicating positive psychological outcomes following the application of acupoint tapping protocols. It lists websites where these reports are posted, such as https://www.emofree.com/eft-article-archive.html (retrieved January 30, 2022) and http://www.eftuniverse.com/faqs/eft-tapping-case-studies (retrieved January 30, 2022).

Mixed Intervention Studies That Include a Tapping Component

An example within this category is combining acupoint tapping with hypnosis. Even though many of these are RCTs, they are not counted as acupoint tapping RCTs since it is impossible to know which components were therapeutically active. The ACEP database lists 18 such reports.

Theory, Mechanisms, and Clinical Application Papers.

This category includes peer-reviewed scholarly articles that discuss theoretical considerations and plausible mechanisms for the actions of acupoint tapping protocols, reflect on existing research studies, or propose clinical applications based on these studies. For instance, guidelines for treating PTSD using a "stepped care" model, based on a survey of 448 EFT practitioners, combined with the research evidence, have been formulated (Church et al., 2017). Eighty-eight theory papers in the ACEP database either discuss acupoint tapping directly or hold implications for acupoint tapping protocols. They represent expert opinions but carry little weight as scientific evidence.

Table 1
Tally of Peer-Reviewed Acupoint Tapping Papers by Scientific Rigor

28 Meta-Analyses and Systematic Reviews
- 5 Meta-Analyses of Acupoint Tapping
- 6 Other Systematic Reviews of Acupoint Tapping Studies
- 8 Meta-Analyses of Multiple Studies That Include a Tapping Treatment
- 9 Other Systematic Reviews of Multiple Studies That Include a Tapping Treatment

69 Randomized Controlled Trials

56 Clinical Trials with Standardized Measures but No Comparison Group

24 Clinical Case Studies

26 Systematic Observation Reports
- 14 Studies Applying Acupoint Tapping but without Formal Assessments
- 12 Studies Surveying or Interviewing Practitioners or Clients

18 Mixed Intervention Studies That Include a Tapping Component

Hundreds of Anecdotal Reports (posted on various websites)

88 Theory, Mechanisms, and Clinical Application Papers

Total: 309 Peer-Reviewed Acupoint Tapping Papers

Articles in Journals Not Published in English

In addition to the studies described above, more than 90 clinical trials reporting investigations of acupoint tapping protocols have been published in non-English language journals (Freedom et al., in press). They investigate treatments with a wide range of conditions. Clinical improvements were found for anxiety disorders, aggression, drug addiction, dementia, depression, post-traumatic symptoms, post-operative pain, and controlling blood sugar levels in diabetes. These studies were not included in the ACEP tallies because only the abstracts had been translated into English, so the study designs could not be reviewed for methodological rigor. Also not included in the ACEP tallies are English-language publications for which ACEP was unable, in this era of predatory journals, to verify the legitimacy of the journal.

Conditions Treated

Psychological conditions that have been shown to respond to acupoint tapping based on studies listed in the ACEP database include anxiety, depression, post-traumatic stress disorder (PTSD), phobias, anger, stress, concentration difficulties, food cravings, insomnia, and performance blocks. Physical conditions that have shown improvement after acupoint tapping include fibromyalgia, pain, headaches, frozen shoulder, psoriasis, obesity, immune function, inflammation, and cardiovascular function. For conditions such as psychotic disorders, dementia, autism, bipolar, or deeply-ingrained personality disorders, while improvements in coping and comfort have been reported, no clinical trials investigating reversals of these conditions were found in the ACEP database.

Major Findings

Of the 125 clinical trials, 123 showed statistically significant improvement on mental health or related measures, with *p* values and effect sizes exceeding what might be expected from placebo and other influences that are not specific to the treatment being studied. Unusual speed as well as durability on follow-up were also frequently reported. Inferences in the following discussion were drawn from (a) the meta-analyses, (b) head-to-head comparisons with established empirically-supported modalities, (c) studies that compared a number of intervention types in treating the same condition, and (d) replication attempts.

Meta-Analyses of Acupoint Tapping Studies

Three meta-analyses focused on the use of acupoint tapping protocols in the treatment of anxiety, depression, and PTSD, respectively. Strong effect sizes were found for all three conditions.

Anxiety

For the treatment of anxiety using EFT, 14 RCTs included a total of 658 participants (Clond 2016). The overall effect size for these 14 studies, pre-treatment to post-treatment, was 1.23 (95% confidence interval, 0.82-1.64). An effect size measures the magnitude of a treatment's effect on the conditions being analyzed. An effect size of .5 is considered a medium effect and .8 or above is considered a large effect, so 1.23 indicates a large effect. The confidence interval of 95% (0.82-1.64) means that the effect size for 95% of the population represented by the data would be between 0.82 and 1.64. However, effect sizes comparing the treatment being examined and the control conditions are generally smaller than pre-treatment to post-treatment effect sizes. The effect size in relation to the control conditions was 0.41. When effect sizes for the control condition were subtracted from the effect sizes for the EFT treatment, the resulting effect size was 0.8, which just reaches the threshold for a large effect. The effect size differences between EFT and two empirically-supported therapies, Cognitive Behavioral Therapy (CBT) and Eye Movement Desensitization and Reprocessing (EMDR), did not reach statistical significance.

Depression

For the treatment of depression using EFT, 12 RCTs with a total of 398 participants had an overall pre-treatment to post-treatment effect size of 1.85 (Nelms & Castel, 2016), again a large effect. This was significantly larger than the effects of the control conditions, which included supportive interviews, diaphragmatic breathing, an educational program, treatment as usual, or a wait-list condition. The one intervention whose effect size was roughly equivalent was EMDR. While the investigators point out that the post-test effect size for the EFT studies in their sample "was larger than that measured in meta-analyses of antidepressant drug trials and psychotherapy studies" (p. 416), they also note that because of the assessment instruments used in most of the studies they analyzed, it is difficult to generalize the findings to the treatment of major depressive disorders.

PTSD

In a meta-analysis by Sebastian & Nelms (2017), seven studies with a total of 247 participants investigated the use of EFT in treating PTSD. For the five studies that used a wait list as the comparison condition, the weighted effect size of the EFT treatments, 2.96, was extremely large. However, the other two comparisons, with active-ingredient controls (one using CBT; the other using EMDR) did not reveal significant differences in effect sizes. The investigators noted that while they considered every available RCT, only seven studies met their inclusion criteria, and several of these had relatively low Ns and only utilized self-inventories for measuring outcomes. After acknowledging these shortcomings, they suggest that head-to-head studies comparing EFT with established treatments are needed before conclusions can be drawn about the relative benefits of each approach.

Two Additional Meta-Analyses

A meta-analysis of 18 EFT studies including 921 participants regardless of treatment target found a medium effect size (.66) between the treatment and control conditions (Gilomen & Lee, 2015). A medium effect size between treatment and control conditions does, however, still indicate that the therapy is yielding clinical benefits that are significantly stronger than the control conditions. The fifth meta-analysis of acupoint tapping treatments calculated effect sizes for only three studies (after excluding those that did not meet inclusion criteria) and found a large effect size, 1.28, on pre-treatment to post-treatment measures (Church et al., 2020).

Ten Head-to-Head Comparisons with "Standard of Care" Therapies

Comparing outcomes of a new therapy and an established therapy with different individuals drawn from the same diagnostic category is another way of establishing the efficacy of a new treatment approach. CBT and its variations are considered the "gold standard" for treating many psychological conditions (David et al., 2018). The meta-analyses for anxiety, depression, and PTSD did not determine the relative strengths of CBT compared with acupoint tapping protocols. Ten head-to-head studies have addressed this question.

The most dramatic comparison was a retrospective study conducted in Kurdistan with 24 traumatized patients who had experienced atrocities, political upheavals, and ongoing violence, all treated by the same clinician in an individual therapy format (Seidi et al., 2021). The

therapist's primary modality had been CBT until subsequently receiving training in Thought Field Therapy. Eleven of the patients received TFT treatments; 13 received CBT. All 11 of those in the TFT group showed symptomatic improvement. Only one in the CBT group showed symptomatic improvement. The others showed no change in symptoms, deterioration of symptoms, or dropped out of treatment. Of the patients who received the CBT treatment and showed no improvement and no promise of improvement (reasons given by the therapist included cultural factors, education level, difficulty applying theoretical concepts such as overgeneralization, failure to complete homework assignments, and fatigue from the number and length of therapy sessions), 7 were subsequently provided with TFT treatment. This led to symptom reduction in each case. Although it is possible that the therapist was simply more proficient with, or more enthused about the more recently acquired skill set, the fundamental difference between the two treatment conditions was that acupoint tapping could be applied with the TFT group but not with the CBT group.

Proponents of acupoint tapping protocols often claim that positive outcomes are obtained with unusual speed. In a study comparing CBT and TFT, 72 patients diagnosed with agoraphobia were randomly assigned to one of two treatment groups or a waitlist (Irgens et al., 2017). Both treatments resulted in highly significant symptom reduction, which was maintained at 12-month follow-up. No significant difference was found between the CBT and TFT outcomes, but TFT accomplished these outcomes in 5 sessions of 50 to 55 minutes each (per the TFT manual used), whereas the CBT group received 12 sessions of 50 to 55 minutes each (per the CBT manual used).

Another claim by proponents of acupoint tapping is strong durability. A study conducted in Iraq randomly assigned 60 secondary school students aged 16 to 19 years who met *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition (American Psychiatric Association, 2000) criteria for PTSD to EFT treatment, Narrative Exposure Therapy (NET) treatment, or a no-treatment control group (Al-Hadethe et al., 2015). NET is a short-term, trauma-focused form of CBT. Participants in each treatment group received 4 sessions of 60 to 90 minutes over a 2-week period. While both treatments produced pre- to post-treatment improvements in variables such as anxiety, re-experience, and avoidance behavior, EFT led to statistically significant improvements in hyperarousal and depression as well. Effect sizes for EFT were greater than for NET. Benefits were also stable for EFT on 3-, 6-, and 12-month follow-up but unstable for NET.

Across the ten head-to-head comparisons, acupoint tapping protocols performed at least equivalently to CBT. In nine of the ten studies, it produced at least one superior effect, such as greater speed, impact, or durability (Feinstein, 2021). In the single head-to-head study that has been conducted comparing EFT and EMDR, patients in a public health facility were allowed to receive up to eight sessions. Voluntary termination of treatment occurred after an average of less than four sessions for both groups, with a large overall effect size for both groups on post-treatment measures (1.0 or slightly larger; Karatzias et al., 2011).

Comparing Multiple Therapies in the Treatment of the Same Condition

Eight meta-analyses have compared a variety of treatments for the same condition, with acupoint tapping protocols being among the interventions. For instance, Brown et al. (2017)

conducted a meta-analysis of psychological treatments for children who had been traumatized following man-made or natural disasters. The therapies reviewed included CBT, EMDR, narrative exposure, and other commonly used trauma treatments. Only one of the 36 studies used an acupoint tapping protocol, Thought Field Therapy (TFT). The largest effect size was produced by TFT.

Since only one tapping application was included in the Brown et al. study, it might have been an outlier. Another comprehensive meta-analysis, by Mavranezouli, Megnin-Vissars, Grey et al. (2020), also of therapies used in treating traumatized youth, lends corroboration. It reviewed 32 studies that investigated 17 different approaches to treating young people suffering with PTSD. Among the interventions were CBT, EMDR, exposure therapy, narrative therapy, play therapy, family therapy, and meditation. The only acupoint tapping intervention used was EFT. EFT was one of the two therapies that were the most effective in reducing PTSD symptoms at treatment endpoint and the most effective of the 17 interventions in retaining improvement in PTSD symptoms on follow-up. While the report notes that variances in the data collected make some of the inferences that might be drawn from the study tentative or inconclusive, this second meta-analysis provides independent support for the finding by Brown et al. about the relative power of an acupoint tapping protocol with traumatized youth.

While seven of the eight comparative meta-analyses focused on efficacy, the eighth examined cost-effectiveness. Based on a network meta-analysis of 10 therapies treating PTSD in adults, acupoint tapping protocols were rated as more cost-effective than trauma-focused cognitive behavioral therapy, selective serotonin reuptake inhibitors (SSRIs), and seven of the other eight therapies that were evaluated (Mavranezouli, Megnin-Vissars, Daly et al., 2020). It is worth noting that this study led to greater institutional recognition of acupoint tapping approaches, providing the basis for recommendations by the UK National Institute for Health and Care Excellence (NICE). NICE created the category of "Combined Somatic/Cognitive Therapies" as an umbrella term for TFT and EFT and recommended further research on both.

Replication Attempts

A hallmark of science is that confidence in the conclusions of a scientific study is increased when the study has been replicated by independent researchers who find similar outcomes. A crisis in science has, however, been emerging over the past two decades with the realization that scientists attempting to replicate many pivotal studies could not (Baker, 2016). This problem exists in the behavioral as well as in the biological sciences (Gollwitzer & Schwabe, 2021; Wiggins & Christopherson, 2019). For instance, a massive project involving 270 researchers using methodologically rigorous designs found that less than half of 90 major studies published in three top-ranking psychology journals were able to be replicated (Open Science Collaboration, 2015).

Four attempts to replicate acupoint tapping studies have been conducted. They have involved the treatment of PTSD (Geronilla et al., 2016), phobias (Baker & Siegel, 2010), and anxiety and depression (Jasubhai & Mukundan, 2018), as well as reduction of the stress hormone cortisol (Stapleton et al., 2020). Each of these replications was modeled after the original study, though in some cases they introduced improvements in the study design or shifts in a variable, such as individual vs. group treatment. All four successfully replicated at least one of the major outcomes

investigated in the original study.

Design Issues

The first peer-reviewed RCT of an acupoint tapping approach (EFT in the single-session treatment of the fear of small animals) was published by Wells et al. in 2003. The first systematic review of the efficacy of acupoint tapping protocols, published in 2008, concluded: "The limited scientific evidence, combined with extensive clinical reports, suggests that energy psychology holds promise as a rapid and potent treatment for a range of psychological conditions" (Feinstein, 2008, p. 199). Critiques of this review were vehement, however, in asserting that its conclusions were vastly overstated in relation to the evidence (e.g., Bakker, 2013; Gaudiano et al., 2012; McCaslin, 2009; Pignotti & Thayer, 2009).

Conclusions drawn from meta-analyses are particularly vulnerable to inaccurate inferences. For instance, the effect sizes in the anxiety (Clond, 2016), depression (Nelms & Castel, 2016), and PTSD (Sebastian & Nelms, 2017) meta-analyses would seem large enough to suggest that they lend strong evidence for the efficacy of acupoint tapping protocols in treating three of the conditions for which people most often seek psychotherapy. The validity of the conclusions derived from a meta-analysis are, however, only as strong as the quality of the studies being examined.

Many of the early clinical trials of acupoint tapping suffered from (a) the use of only a small number of participants, making generalization of findings unreliable; (b) inadequately defined or applied selection criteria; (c) possible bias because the investigators were often proponents of the approach being investigated; (d) waitlist-only comparison conditions that did not isolate non-specific therapeutic effects such as placebo, the therapist's caring, or the desire to please the therapist; (e) over-reliance on subjective measures; and (f) failure to insure strict adherence to manualized treatment protocols (Feinstein, 2021).

More recent investigations have become stronger in each of these areas (reviewed in Feinstein, 2012, 2019, 2021). Larger sample sizes, improved selection criteria, more standardized objective measures, better monitoring of treatment protocols, and more active comparison conditions have been appearing. As study designs have become more robust, they have tended to corroborate rather than contradict the conclusions of earlier studies, suggesting that the positive clinical outcomes were not artifacts of the limitations in the study designs. In following sections we will give special attention to sample size, selection criteria, follow-up, null results, publication bias, and investigator bias.

Sample Size

The minimum number of participants for a study to lead to valid conclusions depends on numerous factors, such as the heterogeneity of the population being studied and the expected effect size. There is no "rule of thumb." An informal internet search by the current author found suggestions ranging from "10 observations per variable" to a minimum of 50 or more. The number most frequently cited as the demarcation between a small study and a large study was 30 participants for each treatment condition.

If the number of participants in the study is too low, the meaning of the results becomes uninterpretable. The findings may not generalize beyond the study. In addition, because small

studies require a larger effect for differences to be detected, they are vulnerable to "type 2 errors" in which the superiority of a treatment over a comparison condition might not be recognized because the differences do not reach statistical significance due to the low N. For this reason, consistent positive outcomes in a large number of small studies, as is the case with the acupoint tapping research, could be interpreted as revealing a strong underlying effect. On the other hand, when therapies that showed strong effects in small studies have been examined with larger numbers of participants, the effect sizes have tended to be lower (Slavin & Smith, 2021), so small *N*s can cut either way. Sample sizes that are too high can also be problematic. In addition to the unnecessary use of resources, such studies may detect statistically significant differences that are clinically irrelevant.

In any case, many of the published clinical trials of acupoint tapping protocols have relatively small sample sizes, and this has been a consistent, valid criticism of the efficacy research. For example, in the meta-analysis of papers investigating the treatment of PTSD (Sebastian & Nelms, 2017), the number of participants in the treatment groups in the seven RCTs examined ranged from 8 to 32, with a mean of 18. The overall pre-/post-treatment effect size was calculated as 2.96, which is unusually high. The two studies with the largest *N*s in the treatment groups (30 and 32, respectively) still had high pre- to post-treatment effect sizes (exceeding 1.3 on all measures, including PTSD symptoms, anxiety, and depression), but considerably smaller than the 2.96 aggregate effect size. The smaller studies generally showed larger effect sizes, which is consistent with investigations of other therapies as well (Slavin & Smith, 2021). This underlies the need for larger *N*s in studies of acupoint tapping. As studies with larger *N*s have been appearing (e.g., Mehdipour et al., 2021; Stapleton & Stewart, 2020; Tack et al., 2021), they have been corroborating the efficacy findings suggested by the smaller studies.

Selection Criteria

Another weakness in many of the existing acupoint studies is that their selection criteria do not involve the precision that would allow generalizations to all members of the population they purport to target. For instance, if studies do not distinguish between single-incident PTSD and complex PTSD, which is more recalcitrant, reports of positive outcomes do not inform the clinical community whether the approach is likely to be effective with complex PTSD. Reactive vs. chronic depression is another example. In the meta-analysis of acupoint treatments for depression (Nelms & Castel, 2016), depression was not formally diagnosed in any of the studies beyond brief symptom check-lists. Often depression was not even the reason the person was receiving the acupoint tapping. While scores on depression inventories—or on depression scales that are included in instruments measuring a variety of symptoms—consistently showed statistically significant decreases in depression scores in all 12 of the included RCTs, the populations in the studies were generally so heterogenous that the implications for the treatment of chronic depression are limited. While formal diagnostic interviews are more time-consuming and expensive than symptom-oriented self-inventories, selection criteria generally warrants more careful consideration than in many of the existing acupoint tapping studies.

Follow-up

The durability of a therapy's benefits is, of course, a vital question. Of the 125 clinical trials of acupoint tapping in the ACEP database (69 RCTs and 56 clinical trials with no comparison condition), 81 did follow-up investigation (including 50 of the 69 RCTs and 31 of the 56

uncontrolled clinical trials). Of the 81 studies reporting follow-up, 79 found that "benefits were sustained." This was defined as meaning that follow-up testing showed a statistically significant ($p < .05$) improvement between pre-treatment assessments and assessments at the end of the follow-up period on at least one of the major targets for change (Feinstein, 2021).

Null Results and Publication Bias

Of the 69 RCTs investigating acupoint tapping protocols, 68 reported statistically significant improvement in at least one of the targets for change being examined. Of the 56 clinical trials that did not include a control condition, 55 showed statistically significant improvement. However, most ostensibly credible therapeutic interventions lead to some overall improvement based on non-specific therapeutic factors alone (Wampold & Imel, 2015), so the consistent positive outcomes within acupoint tapping protocols is not particularly noteworthy.

That the two studies in which benefits did not reach statistical significance (Moritz et al., 2011; Taylor et al., 2020) are included in the ACEP database does speak, however, to the issue of publication bias. Publication bias occurs when studies that do not demonstrate the desired results are not reported or if the "gray literature" (conference proceedings, government reports, dissertations, foreign publications, et cetera) is ignored. While there is no way to determine with confidence how many studies with null results have not been reported, the ACEP database does contain these two studies as well as many entries from the gray literature and English-translated titles, abstracts, and access information for papers published in foreign languages. On inquiry, the chair of the ACEP Research Committee, who frequently consults with investigators on their study designs, was not aware of any acupoint tapping studies with null results that have not been published (personal communication, John Freedom, October 5, 2021).

Investigators Who Are Also Proponents of the Approach Being Studied

Criticisms about investigators being advocates of the method they are studying, leading to biases and motivations that might influence study design and outcomes, are of concern in evaluating almost any new therapy. The contaminating influences of both "allegiance effects" (Munder et al., 2013) and "confirmation bias" (Mynatt et al., 1977) are well established in study outcomes. Nonetheless, individuals who have a personal investment in the therapy's recognition also tend to do the early research, and acupoint tapping protocols are no exception. In the five meta-analyses focusing solely on acupoint tapping, four of the five investigators had previously published papers that were favorable about the approach. As the integration of acupoint stimulation into psychotherapy is becoming more mainstream, and as outside funding is starting to be more widely available, however, more independent researchers, with no intellectual or financial stake in specific outcomes, are becoming involved. For instance, in the 14 comparisons of multiple therapies which included acupoint tapping protocols, only one included investigators who had any affiliation with the approach. Yet these studies all showed acupoint tapping protocols to be among the most promising treatments in the comparisons.

Mechanisms of Action

Even if acupoint tapping protocols do bring about the rapid clinical outcomes suggested by the existing evidence, the question of how they accomplish this remains unanswered. Two issues related to the mechanisms of action are addressed here: (a) is acupoint tapping an active ingredient

in producing the positive treatment outcomes, or might these outcomes be the result of other elements of the protocol?; and (b) what brain mechanisms might plausibly explain why the odd-looking procedures used in acupoint tapping protocols bring about therapeutic change?

Is Acupoint Tapping a Critical Ingredient?

Alternatives to the stimulation of acupuncture points have been proposed as the mechanisms in the strong positive outcomes reported in the clinical trials. For instance, the psychological benefits of cognitive interventions and imaginal exposure, both used in acupoint tapping protocols, are well-established (David et al., 2018). Other confounding factors might involve non-specific therapeutic influences such as the attention of a caring professional, the placebo power of positive expectations and hope, and the therapeutic alliance, each of which may add to the impact of virtually any psychotherapeutic approach (Zilcha-Mano et al., 2019). Seven studies have attempted to isolate the influence of acupoint tapping on treatment outcomes. Each compared an EFT protocol with a nearly identical protocol, except that in the comparison group acupoint tapping was replaced with a different intervention. The substitutions included diaphragmatic breathing, mindful breathing, or tapping on points that are not acupuncture points, referred to as "sham points."

In the most recent and stringent of these, 88 women with mild to moderate depression were randomly assigned to an EFT group or a control group that used an identical protocol except that the acupoints were replaced by sham points (Mehdipour et al., 2021). After the 8-week intervention, the mean depression score on the Beck Depression Inventory was reduced by 11 points in the EFT group (20.93± 4.6 down to 10.96 ± 4.38); it was reduced by 2 points in the control group (19.18 ± 2.79 down to 17.01 ± 6.05). The frequency of moderate depression decreased from 56.8% to 9.35% in the EFT group and from 50% to 29.5% in the control group (p <0.001). While the superiority of protocols that used recognized acupoints was highly significant, the substantial improvements in the control group may have been due to the protocol's use of cognitive methods, exposure, non-specific therapeutic factors, and/or a limited therapeutic effect of tapping on non-acupuncture points. The six studies prior to Mehdipour et al. were evaluated in a review and meta-analysis which concluded that "the acupressure component was an active ingredient and outcomes were not due solely to placebo, nonspecific effects of any therapy, or nonacupressure components" (Church et al., 2018, p. 783). Challenges to this conclusion have been posed (Spielmans, et al., 2020; Spielmans & Rosen, 2022) and addressed (Church, Stapleton, Kip, et al., 2020; Church et al., 2022).

Brain Mechanisms

Another criticism of the early acupoint tapping studies was the observation that no scientifically plausible mechanisms had been presented (Bakker, 2013; Gaudiano et al., 2012; McCaslin, 2009). Many of the early accounts by proponents of the method did indeed rely on metaphysical explanations of energy fields or on the authority of pre-scientific healing traditions. In the intervening years, however, plausible empirically-informed frameworks accounting for the mechanisms of action in acupoint tapping protocols, which do not rely on ancient philosophies or forces that can't be scientifically detected, have been appearing.

Tapping Generates Electrical Signals

The generation of electrical signals by tapping on them is explained by the well-established mechanism known as "mechanosensory transduction" (Bagriantsev et al., 2014). In this process, pressure on a class of large proteins in skin cells converts mechanical stimulation into electrical impulses, called piezoelectricity or "electricity caused by pressure." The signals are believed to be rapidly carried to remote areas of the body via the connective tissue, which contains high concentrations of the semi-conductor collagen (Langevin & Yandrow, 2002).

Sending Activating and Deactivating Signals to Specific Brain Areas

A 10-year research program at Harvard Medical School using fMRI and other imaging devices to investigate the effects of stimulating acupuncture points found that certain points send signals to the amygdala and other parts of the limbic system which reduce arousal almost instantly (Fang et al., 2009). Based on these and other imaging studies, acupoint tapping is believed to send activating as well as deactivating signals to pertinent brain areas in a manner that corresponds with therapeutic change.

For instance, an fMRI study showed that after acupoint tapping treatments for food cravings, blood flow to brain regions involved with craving (the superior temporal gyrus, associated with cognition, and the lateral orbito-frontal cortex, associated with reward) were significantly reduced when images of desired foods were presented (Stapleton et al., 2019). In a study of the successful treatment of a phobia about flying, magnetoencephalography (MEG) showed, as would be expected, that the neural correlates of the threat response were downregulated. However, activation of frontal executive regions that play a major role in cognitive appraisal and the mediation of limbic responses to stressful stimuli was also found (Di Rienzo et al., 2020). Corroboration of the conclusions drawn in this single case study was found in an RCT that used electroencephalography (EEG) to investigate neural changes following an EFT session or a Progressive Muscle Relaxation session in 22 subjects who had met the criteria for anxiety disorder. EFT downregulated the activity of limbic and cerebellar brain regions implicated in the fear response and increased the engagement of frontal executive regions that mediate limbic responses to stressful stimuli (König et al., 2019).

These studies support a core premise that has clinical implications. If tapping on acupuncture points generates activating and deactivating signals that are sent to the brain regions aroused by a person's attention, then emotions such as fear, anger, or jealousy may be rapidly attenuated while related executive brain functions such as reasoning, threat assessment, and affect control may be augmented. Therefore, by directing a client's attention during tapping, a therapist may be efficiently, even if unwittingly, targeting the brain regions that will receive the activating or deactivating signals that are produced by the tapping.

While formulated on the very limited number of imaging studies that have been conducted to date, and further mapping is needed, this premise is consistent with observations from the vast majority of the 125 clinical trials investigating acupoint tapping protocols. Also still needing definitive mapping are the neural mechanisms by which brain areas aroused by a client's attention appear to attract the signals generated by acupoint stimulation as well as the impact of the designated acupoints on specific brain regions or psychological conditions. Traditional Chinese Medicine does, however, attribute specific functions to the acupuncture points used in energy psychology protocols, such as "helps with decision making," "strengthens resolve," "moving on when stuck emotionally," "coordinates body and mind," "relieves mental stagnation," or "raises the spirits" (Lightbody, 2020).

Additional Explanations

Complementary explanatory models have also been proposed. A neurochemical account of how somatic interventions such as acupoint tapping can be highly effective in treating trauma has been presented in elaborate detail by Ruden (2015). Therapeutic effects brought about by acupoint tapping protocols on the vagus nerve's regulatory and social engagement functions have been postulated (Schwarz, 2018), along with the neurological sequences by which acupoint tapping appears to accelerate memory reconsolidation in shifting outdated mental schemas (Feinstein, 2015; Stapleton, 2019).

Integrating Acupoint Tapping Protocols into Clinical Practice

With 123 of 125 clinical trials showing statistically significant positive effects following tapping treatments and with plausible scientific explanations for the mechanisms emerging, the question of how a clinician can integrate the method into an existing practice remains. This process is simplified somewhat because tapping is in many ways relatively atheoretical. It is a somatic intervention that has measurable neurological and hormonal effects. For instance, it reduces limbic system arousal associated with anxiety (Clond, 2016; Fang et al., 2009) and PTSD (Sebastian & Nelms, 2017). It increases activity in executive regions of the brain (Di Rienzo et al., 2020; König et al., 2019). It changes arousal patterns in brain areas associated with addictive behavior (Stapleton et al., 2020). It also reduces cortisol levels (Church et al., 2012; Stapleton et al., 2020) and facilitates positive changes in gene expression (Church et al., 2018; Feinstein & Church, 2010; Maharaj, 2016), blood pressure (Bach et al., 2019), heart rate variability (a measure of cardiac flexibility in response to autonomic distress; Morikawa et al., 2021), and lymphocyte production (Babamahmoodi et al., 2015).

While these physiological effects have psychological consequences, acupoint tapping itself is not based on a psychodynamic model. The underlying premise is that acupoint tapping generates activating and deactivating signals which impact, in real time, brain areas aroused by a client's focus of attention. This suggests that the therapist is able to purposefully facilitate cognitive and neurological changes by shifting the wording and imagery that accompanies the tapping. This allows the approach to be more readily integrated into each phase of therapy, regardless of the clinician's theoretical framework. For instance:

- Past traumas can be revisited while acupoint tapping reduces distress in a manner that helps the limbic system process unresolved emotional material.

- New cognitive and behavioral patterns can be reinforced by combining tapping with positive affirmations and visualizations that support desired outcomes.

- If issues addressed during the therapeutic process evoke high levels of anxiety, sadness, fear, or anger, acupoint tapping can be applied to downregulate the client's discomfort and increase the ability to focus.

- Back-home assignments can reinforce new learnings and include simple tools for emotional self-management. For instance, a mobile app that guides users in applying acupoint tapping protocols for anxiety and stress was investigated in a large-scale study including 270,461

app users and found highly significant (p <.001) symptom reduction (Church, Stapleton, & Sabot, 2020).

Some evidence also suggests that introducing tapping protocols into psychotherapy seems to favorably shift the therapist-client relationship. A phenomenological study based on interviews with 16 seasoned therapists of varying clinical orientations who had introduced EFT into their already established practices found that all 16 independently reported that the new techniques had the effect of enhancing the therapeutic alliance with their clients (Nairn, 2020). The clinicians speculated that one reason is that tapping produced rapid, ongoing, tangible shifts that served as subjective proof for their clients that the therapy was working. They also reported that tapping along with the client (which is a feature of most tapping protocols) demonstrated the therapist's engagement, introduced a ritualistic quality that brought the therapist and client into greater resonance, and was experienced by the therapists as enhancing their intuition about the client's issues.

Limitations

The purpose of this review has been to provide an overview and analysis of the published evidence for acupoint tapping protocols. While it has attempted to interpret the tallies found on the hierarchy of evidence according to established scientific practices, it has not attempted to conform to the most stringent guidelines available for assessing a body of research findings. For instance, the GRADE system, which is one of the most rigorous models to date, is highly nuanced in how the studies in each category of evidence are evaluated (https://gdt.gradepro.org/app/handbook/handbook.html, retrieved September 20, 2021). It systematically downgrades the assessed quality of evidence when findings among different studies are mixed or design quality is poor and systematically upgrades the assessed quality when effect sizes are large or all plausible confounding factors have been taken into account. While I have attempted to take instruction from the GRADE system and to represent the data accurately and in a useful manner, it was beyond the scope of this study to adhere to all the GRADE guidelines. My biases as a proponent of the method are also inevitably woven into the discussion and interpretations.

Conclusion

The body of research on acupoint tapping that has emerged over the past two decades and the increasing quality of the study designs appear promising. Recommendations by proponents that this process can substantially increase the effectiveness of treatments for a wide range of psychological conditions do, however, call for exceptionally strong evidence. Despite encouraging outcomes in the clinical trials, many gaps still exist in the literature, and definitive claims would be premature. Further research on the effects of the approach with well-defined clinical populations, on tailoring interventions to those populations, and on better understanding the mechanisms of action, along with more stringent systematic reviews by independent investigators, are needed in order to more conclusively validate acupoint tapping protocols. Nonetheless, findings indicating strong efficacy, unusual speed, and durable improvements have been consistent in the studies that have been conducted and warrant the attention of clinicians as they explore clinical innovations that might enhance their practices.

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