Heart Rate Variability, Heart–Brain Coherence, and Manual Therapy

A narrative review of the evidence informing the HeartTouch Program

David T Abbott

Core Therapy Center, Aurora, Colorado, USA

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Abstract

Background. Heart rate variability (HRV) indexes autonomic regulation and self-regulatory capacity, and interest is growing in whether hands-on manual therapy — combined with structured breathing and trauma-informed delivery — can shift HRV during a session and whether any shift carries over into pain, range of motion, and daily function. No controlled trial has yet tested that combined intervention.

Objective. To review, with explicit evidence grading, the literature that informs the HeartTouch Program: HRV measurement standards, heart–brain mechanisms, coherence research, breathwork, nitric oxide physiology, and trauma and safety frameworks — and to state plainly what that literature does and does not establish about manual therapy itself.

Methods. Narrative review. Sources were drawn from the HeartTouch Program synopsis reference set and checked against publisher and index records. Every substantive claim is graded in three tiers — Established, Measured with interpretation, and Emerging — and caveats are reported alongside findings, including null results. Speculative material is confined to a separate section (Section 12) and supports no health claim in this review.

Synthesis. HRV measurement is well standardized (Task Force, 1996; Shaffer & Ginsberg, 2017), and neurovisceral integration provides a mainstream mechanism linking vagally mediated HRV to emotion regulation and cognition. Brief structured breathing improved mood more than mindfulness meditation in one randomized trial, and Buteyko trials consistently improved asthma symptoms and reliever use without consistent improvement in measured lung function. Nitric oxide pathways are established physiology, but human supplement trials are small, short, and industry-linked, and the largest such trial was null. Trauma research (the Adverse Childhood Experiences study; a randomized trial of trauma-sensitive yoga) supports body-based, trauma-informed framing but does not test manual therapy. Six years of before-, during-, and after-session HRV tracking within the HeartTouch Program are reported here as unpublished pilot observations — hypothesis-generating only, with no sample size, protocol, or statistics yet available for evaluation.

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Conclusions. The components of the HeartTouch approach are individually plausible and measurable, but their combination is untested. The contribution this literature supports is not a claim of efficacy; it is a testable protocol. A pre-registered controlled trial, reported to HRV standards, is the necessary next step.

Keywords: heart rate variability; heart–brain coherence; manual therapy; breathwork; neurovisceral integration; nitric oxide; trauma-informed care; narrative review

1 Introduction

The heart is more than a pump. It contains its own intrinsic nervous system, sends more signals to the brain than it receives, and its beat-to-beat variability — heart rate variability (HRV) — reflects how flexibly the autonomic nervous system regulates physiology, emotion, and cognition. Low vagally mediated HRV is associated with poorer self-regulation and with risk for pathophysiology and psychopathology; higher HRV is associated with adaptability and resilience. That makes HRV an attractive outcome measure for any intervention that claims to change a person's regulatory state.

Manual therapy is one such intervention. Practitioners of massage and manual therapy routinely observe clients settling during a session — breathing slows, muscle tension falls, pain eases — and clients often report that the change lasts beyond the session. Those observations, however, are not evidence. They are routinely made without a control condition, without standardized measurement, and without follow-up, and the wider literature contains very few controlled trials of meditation, heart–brain coherence, or HRV-based interventions, and fewer still that combine them with hands-on treatment.

The HeartTouch Program, developed over six years by the author, pairs HRV tracking with biofeedback devices before, during, and after relaxation massage and manual therapy sessions, and records range of motion and pain sensation alongside the physiological signal. Its premise is that carryover — whether an in-session autonomic shift persists into daily function — is the effect worth testing. This review assembles the evidence behind that premise, grades it honestly, and separates what is established from what is merely proposed. It does not present the program's own observations as results; Section 11 explains why, and Section 15 sets out the controlled design that could turn observation into evidence.

2 Methods

This is a narrative review, not a systematic review. It was prepared by reshaping the HeartTouch Program synopsis (Research Edition, October 2026) — a program document — into journal form. Because the source set was assembled for program development rather than through a systematic search, this section states how sources were selected and appraised so that a reader can judge the selection for themselves. No protocol was pre-registered, no dual independent screening was performed, and no quantitative synthesis or meta-analysis was attempted.

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