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DISSERTATION

Decision-Making Process: A Mixed Methods Study of Somatic Awareness use by
Psychodynamic Clinicians in the Treatment of Trauma-Related Disorders

Mary Patricia Curry, MSW, LCSW

Submitted in partial fulfillment of
the Degree of Doctor of Philosophy

Smith College School for Social Work
Northampton, MA 01063

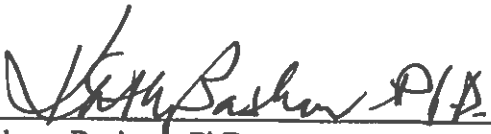
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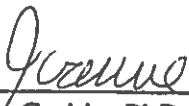
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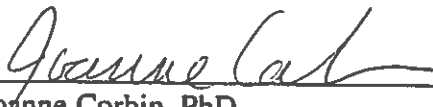
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Decision-Making Process: A Mixed-
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Clinicians in the Treatment of Trauma
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Abstract

This exploratory study examined clinical experiences and perspectives of psychodynamic clinicians on assimilative integration of neurobiologically informed somatic awareness and somatic interventions for the treatment of posttraumatic stress disorder (PTSD) and other trauma-related disorders. Using an online mixed-methods study survey, quantitative and qualitative data were collected and analyzed. The *primary study cohort* respondents (N=156) met all study inclusion criteria and an *excluded study sub-cohort* respondents (N=56) met partial criteria. Psychodynamic relational practice and neurobiological concepts are formulated from the perspective of assimilative integration.

The results, derived from integrating both data sets, reveal clinically relevant elements of the decision-making processes of psychodynamically informed clinicians who use somatic awareness and somatic interventions in their treatment approach with individuals who have been traumatized. They suggest that a trauma-specific neurobiologically informed psychodynamic treatment is an emerging clinical approach for individuals with PTSD and other trauma-related conditions.

Key words: trauma, psychodynamic, somatic, neurobiology, assimilative integration

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In 1901 Freud wrote *The Psychopathology of Everyday Life*, a paper exploring forgetfulness of many sorts, including the forgetting of proper names. So many colleagues and friends have helped me in uncountable ways over the course of this research project. While I hope to not forget to acknowledge any one person, I know that I could never include everyone by her or his own proper name, although I do wish that I could list everyone.

So I will begin by extending my appreciation and gratitude to Kelly Hyde, PhD, for her love, support and many hours of being a confidential thought partner throughout this journey. Next, I must thank my entire family for their unwavering belief in me, especially my parents. Although my father, Stanley E. Curry who left us twenty years ago; he taught me how to think critically and he is a secure object within my psyche. My mother, Abbie J. Curry, is and has always been my number one fan, without a doubt believes that I can accomplish anything. At almost ninety-two years of age, she continues to teach me to love life with all my might!

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CHAPTER I

Introduction

In an epoch distinguished by global catastrophic wide-ranging traumatic events, millions of people are in need of effective, evidence-based treatments to recover and heal from trauma-related conditions. In addition, treatments must be culturally informed and deliverable as population health initiatives. Achieving the goals and objectives of this research project has required weaving multiple sources of interdisciplinary literatures, differing treatment perspectives in the field of traumatology, disparate research paradigms, and a fair amount of epistemological flexibility. Although the study population for this research was narrowed to create a manageable scope, the *space* is vast that this study issue inhabits. This mixed-methods exploratory research project has the potential to advance trauma-specific psychodynamic theory and practice with individuals diagnosed with posttraumatic stress disorder (PTSD), Complex PTSD, and/or other trauma-related conditions. Introduced in this chapter are sections addressing: 1) the purpose of researching this study issue; 2) a descriptive case vignette to orient the reader to clinical phenomena being studied; 3) the specific aims of the study; 4) a rationale for the study; 5) the psychodynamic theoretical framework; 6) an introduction to the conceptual framework of theoretical integration; and 7) a brief discussion of the concepts of evidence-based practice and practice-based evidence as they relate to this research project.

Purpose of Researching this Study Issue

The specific purpose of this study is to empirically explore the decision-making processes of psychodynamically informed clinicians who use somatic awareness and somatic interventions

in their treatment approach with individuals who have been traumatized. To examine this study issue, an exploratory mixed-methods study (MMS) design is used to discover how the use of somatic awareness and somatic interventions occurs among some clinicians and how this phenomenon may influence revising central psychodynamic theoretical concepts. Many of these body-based somatic models have been organized into formalized clinical trainings, while other models are disseminated in books, articles, and online videos. Ample theoretical literature and anecdotal evidence support the existence of this phenomenon. Consequential support for these neurobiological trauma-focused concepts comes from historical and contemporary heuristic discovery among psychodynamically educated clinicians often in collaboration with neuroscience researchers from diverse disciplines (Levy, Ablon, & Kächele, 2012; Payne, Levine, & Crane-Godreau, 2015, Porges, 2011; Schore, A., 2003, 2012). By substantiating this clinical treatment phenomenon empirically, this research project contributes knowledge to a gap in both traumatology and clinical social work theory and practice.

The prevalence of trauma-related conditions coupled with an underdeveloped body of evidence-based approaches to treat them highlight the need for ongoing study of neurobiologically informed innovative approaches. Several neurobiologically based somatically focused treatment models have been developed specifically to relieve and/or eradicate trauma-related symptoms that manifest physiologically and psychologically. Increasingly, neurobiological knowledge is informing our understanding of essential modes of interpersonal communication between the clinical dyad (Schore, J., 2012). Yet, only a paucity of empirical research that confirms the efficacy of these approaches exists; indeed, such a lack of research leaves it unclear whether any efficacy can be attributed to these somatic body-based methods. While this study is not intended to promote the idea that integrating a somatically informed

perspective with trauma-specific psychodynamic practice is essential to the treatment of trauma-related conditions, it underscores the need to develop constructs that allow for the integration of neurobiologically informed ideas within psychodynamic theory and practice.

Specific Aims of the Study

The central aims of this study are: (a) to explore the synthesized use of somatic awareness and somatic interventions by psychodynamically oriented clinicians in the treatment of PTSD and trauma-related disorders; (b) to develop an understanding of the decision-making process of why, when, and how somatic awareness and somatic interventions are being utilized in psychodynamic practice for the treatment of individuals who have been traumatized; (c) to explore psychodynamic theoretical concepts that can be used to inform clinical practice guidelines for the synthesis of somatic awareness and somatic interventions in the treatment of individuals who have been traumatized; and (d) to contribute useful knowledge to clinical social work practice, the field of traumatology, and clinical research targeting the exploration of psychodynamically informed clinicians' direct practice experience of synthesizing somatic awareness and somatic interventions in the treatment of individuals who have been traumatized.

Imperative to Increase Effective and Deliverable Treatment Options

The lack of effective and easily deliverable trauma-specific evidence-based practices poses a serious and far-reaching problem. We have a professional imperative to research novel promising practices as well as understanding how novel practices are migrating into psychodynamic theory and practice concepts. Posttraumatic stress disorder (PTSD), trauma-related conditions, and other adverse responses to exposure to traumatic events are highly prevalent, and only a low percentage of the population access treatment (Kessler, 2000). The lack of effective treatments for PTSD and other trauma-related disorders is considered a

worldwide public health concern (World Health Organization, 2013) while epidemiological surveys reveal the devastating impact of traumatic events on the physical and psychological well-being of individuals. Kessler et al. (2005) estimate “about half of Americans will meet the criteria for a DSM-IV disorder sometime in their life, with first onset usually in childhood or adolescence” (p. 593). Twenty-eight percent of these disorders will be comorbid anxiety disorders including PTSD.

Limitations of Current Evidence-Based Treatment

Current evidence-based practice options for posttraumatic stress disorder (PTSD) and other trauma-related conditions are in the early stages of establishing adequate efficacy, and these treatments lack deliverability to diverse populations affected by traumatic events (Committee on the Assessment of Ongoing Effects in the Treatment of Posttraumatic Stress Disorder, & Institute of Medicine, 2014). Anecdotally, neurobiologically informed approaches for treating symptoms associated with psychological trauma are being utilized by some psychodynamically oriented clinicians. An increasing number of theoretical and case reports on the use of somatic awareness and somatic interventions are available in books, journals, and clinical trainings. Valuable insights into psychodynamic treatment of individuals who are suffering from trauma-related conditions can be discovered by exploring why, when, and how psychodynamically oriented clinicians are synthesizing neurobiologically informed somatic awareness and somatic interventions.

The *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; DSM-5; American Psychiatric Association, 2013) noted, “The prevalence of PTSD may vary across development; children and adolescents, including preschool children, generally have displayed lower prevalence following exposure to serious traumatic; however, this may be because previous

criteria were insufficiently developmentally informed” (p. 276). Essentially, an accurate measure of prevalence is compounded by many factors, including diverse perspectives of clinicians from different theoretical orientations. Research findings have confirmed that individuals often respond to traumatic events with severe cognitive, emotional, and neurobiological consequences that undermine an individual’s overall health and well-being (Chu, 2011; McFarlane, Weisaeth, & Van der Kolk, 2012; Porges, 2011; Scaer, 2001; Schore, A., 2003, 2012; Solomon & Siegel, 2003; Van der Kolk, 2014). Many survivors of traumatic event(s) are protected by their own resilience and do not develop trauma-related conditions. Clinicians have a professional responsibility to consider this research, to understand how somatic awareness and somatic interventions are being utilized, and to develop a research base to determine the efficacy of the adapted use of somatic body-based treatment methods as part of the psychodynamic treatment of PTSD and other trauma-related conditions.

Concepts of Psychological Trauma

How do we recognize and diagnose trauma-related conditions? Notably, the DSM-5 introduced a new classification section for trauma- and stressor-related disorders. This new classification marks a shift in our thinking of trauma-related disorders as anxiety disorders to understanding them as trauma-specific disorders. The DSM-5 is arguably a socially constructed document that lends a common nomenclature to conceptualize and convey clinical ideas within our profession about diagnosis. However, the DSM-5 offers a limited perspective on different types of traumatic experience. Of most relevance, the DSM-5 does not directly recognize Complex PTSD, Developmental PTSD, or Early Relational Trauma. While the DSM-5 references aspects of the development and course of PTSD, pre-traumatic factors, and includes diagnostic specificity for dissociative symptoms and *delayed expression* of symptoms, an

identifiable traumatic event(s) must precede symptoms to meet the criteria of PTSD. For the purposes of this research project, PTSD, Complex PTSD, and Early Relational Trauma will be defined and included as key terms in the survey instrument.

Trauma-Specific Language

In the early stages of implementing this research, a raised awareness related to the common ways we discuss trauma-related pathology resulted in a change in the choice of language used throughout this manuscript. Out of respect for the vulnerable population of people who have been traumatized, they develop symptoms that are often difficult to live with, yet represent a mode of coping with trauma. Whenever possible pathologizing language will be avoided in this dissertation manuscript. The designations of *trauma-related conditions* and *individuals who have been traumatized* will be used to avoid inadvertently endorsing that a person's response to an overwhelming traumatic event results in a plethora of acute and/or chronic psychiatric disorders. I also avoid classifying people as *traumatized individuals* as though their identity as human beings has been perpetually altered by traumatic experience. Keeping the use of trauma-specific language in mind, a clinical vignette is presented next to demonstrate the use of somatic concepts from a psychodynamic perspective.

Case Vignette

To create a point of orientation for this study issue, the following case vignette provides an example of a clinical process synthesizing somatic awareness and somatic interventions. The somatic concepts depicted are adapted from Somatic Experiencing (SE), Trauma Resiliency Model (TRM), and Sensorimotor Psychotherapy (SP). A full overview of these models is presented in Chapter Two as part of the literature review. This case vignette illustrates the synthesis of somatic awareness interventions within a psychodynamic treatment framework.

This clinical vignette has been developed as a case composite to ensure protections around confidentiality, and reflects an initial session from my own practice. The client begins the session with a description of overwhelming physiological symptoms that she links with past and current traumatic event(s).

I can't stop shaking inside. I just try to get through the day and not let my kids see me crying. I know it's not just what's happening with my husband. I grew up in an abusive home. My dad beat us, all five of us. I walked on eggshells until I could move away from home. I couldn't get out of there fast enough. Now, with my husband, it feels like the same thing. He doesn't hit me, but it is emotional abuse. Everything is a trigger for me, and I just want to leave. I start crying as soon as my kids are in bed, but the shaking doesn't stop. (She begins crying, and I observe that she is physically trembling.)

During the session, I began to use somatic self-awareness of my own sensations to remain grounded, present, and attuned. I also began to wonder if, in response to her presenting concern of the physiological symptom of "shaking inside," the use of somatic interventions might be helpful to her. She clearly needed to tell her story, and I wanted a better understanding of her capacity to self-regulate. I gently interrupted her and expressed that I would follow up with her fifteen minutes before the end of the session to see if she would like to try a self-care stress management skill that might help with the shaking.

When the time came, she allowed me to teach her the somatic awareness skills of tracking/observing that involves being aware of her sensations, breathing, and heart rate, and the skill of resourcing that involves developing an internal resource using her imagination to help calm and stabilize her nervous system. As she practiced these somatic skills, she stated first that the shaking sensation was slowing down, and then, that the shaking had stopped. Next, she

described noticing a warm sensation in her chest area and tingling on the surface of her arms. During the remaining time in the session, I encouraged her to focus her awareness on her pleasant sensations. My participation involved observing any physiological changes, selectively verbalizing observable changes, and assessing her use of the intervention through a psychodynamic lens.

Psychodynamic assessment can be informed by observing a client's capacity to use somatic interventions. In this case example, the patient's use of the somatic intervention added to my initial understanding of her ego functions, internalized objects, internal working model of attachment, developmental stage, and degree of nervous system resilience. A greater understanding of why, when, and how psychodynamic clinicians are choosing to use somatic approaches will support a shift from an either/or to a both/and stance that can advance theory and practice.

Rationale for the Study

The rationale for this study issue is the apparent need to develop a broader range of effective treatments for PTSD and other traumatic stress-related problems that address both *psychological* and *physiological* sequelae. To some degree, somatic treatment approaches are occurring along with adaptations of these approaches to psychodynamic treatment of individuals who have been traumatized. Neuroscience research supports the use of biologically based treatment interventions for trauma-related disorders (Applegate & Shapiro, 2005; Kandel 2006; Ogden, Minton, & Pain, 2006; Porges, 2011; Schore, A. N., 2003, 2012; Solomon & Siegel, 2003). Given the substantial research findings regarding the neurophysiological features commonly present in trauma-related disorders, effective treatments must encompass interventions that specifically address physiological symptoms. Expanding psychodynamically

oriented treatment to include interventions for trauma-related dysregulation may be particularly relevant when “PTSD is associated with persistent hyperarousal, exaggerated responses to startling sounds, and elevated responses to external and internal trauma reminders” (Pole, 2007, p. 742). Although ego supportive psychodynamic interventions provide containment and stabilization in the early phase of treatment, opting to include theoretically grounded somatic awareness interventions may enhance the overall effectiveness of psychodynamic treatment (Berzoff, Flanagan, & Hertz, 2011; McWilliams, 1999; Vaillant, 1992).

Research confirms that dysregulation of the nervous system and cognitive impairment of prefrontal cortex function are shared features among individuals who develop posttraumatic stress disorder (PTSD) or other traumatic stress-related disorders in response to traumatic events (Cohen & Miller, 2001; Schore, A. N., 2012). Psychodynamic psychotherapy is an evidence-based practice used in the treatment of posttraumatic stress disorder (PTSD) and the treatment of other trauma-related disorders (Drisko & Simmons, 2012). Examining the adaptation of body-based treatment methods by psychodynamic clinicians may lead to revising some theoretical and clinical concepts for the treatment of individuals who have been traumatized.

Contemporary Trauma Theory

A supporting rationale for this study relates to the importance of adhering to trauma-specific phased treatment guidelines that recognize individuals must first be stabilized, before they can effectively process and reconsolidate traumatic memories. Contemporary trauma theory development consistently emphasizes a phased approach to the treatment of trauma-related disorders (Allen, 2001; Basham, 2011; Cloitre et al., 2012; Courtois & Ford, 2009; Herman, 1992). Such a phase-oriented conceptual framework aligns with this investigation of the decision-making processes by psychodynamic psychotherapists who synthesize somatic

awareness and somatic interventions. From a psychodynamic perspective this phase-oriented process is informed by a thorough biopsychosocial-spiritual assessment. Distressing psychological and physiological symptoms are often present in the initial phase of treatment, and can also occur in all phases of treatment. Consequently, somatic awareness and somatic interventions may be useful throughout the treatment phases.

Three Phases of Treatment for Trauma-Related Conditions

Trauma-specific treatment approaches typically consist of three distinct phases. At times, these phases can overlap and alternate, depending on each individual's unique capacities and ability to develop resources to self-regulate. During phase-one, therapeutic objectives focus on stabilization, creating safety in the therapeutic alliance, and increasing the patient's self-care in preparation for engaging in their traumatic narrative. In phase-two, the patient begins the process of understanding the impact of traumatic event(s) on their life, yet should have a sufficiently sound internal structure to be able to bear the intensity of emotions that are stirred during this period. Phase-two may involve "remembrance, integration, and mourning or the depth exploration of the traumatic experience" (Tummala-Narra, Kallivayalil, Singer, & Andreini, 2012, p. 643). From a psychodynamic perspective, we understand that without these capacities and ego structure, a client may become psychologically and physiologically overwhelmed. At these times, the patient can be supported to return to phase-one objectives (re-stabilize, return to a sense-of-safety, and re-create the therapeutic environment). In phase-three, the therapeutic objectives include reconsolidating traumatic memories in "the process, whereby a retrieved or reactivated labile memory re-stabilizes over time" and leads to achieving posttraumatic growth (Alberni, 2011, p. 2). Indications of posttraumatic growth may be reflected in more satisfying relationships and greater overall social engagement.

Psychodynamic practice and somatic models are theoretically grounded and phase-oriented. Both approaches begin with stabilization. An initial psychodynamic focus on stabilization entails ego supportive goals to increase affect regulation, while somatic models begin with somatic interventions to support stabilization of the central nervous system. In a research study assessing the treatment of PTSD among Veterans, Hoge (2011) emphasized the need for treatments to address affect dysregulation that, “based on the high prevalence of physiological symptoms among Veterans, the treatment of PTSD in Veterans, therefore, must involve coordinated post-deployment care that addresses physiological hyperarousal and physical health concerns” (p. 550). Somatic awareness interventions can directly support psychological and physiological self-regulation, and subsequently support self-efficacy in all phases of the treatment process (Leitch, 2007; Levine, 1997, 2010; Ogden, Minton, & Pain, 2006).

Relational Psychodynamic Theoretical Framework

The theoretical framework for this study includes psychodynamic relational theories. Although all psychodynamic theories can be integrative of somatic awareness and somatic interventions, relational theories offer a wide range of concepts for an assimilative integration of somatic awareness and somatic interventions (Berzoff, 2011; Connors, 2011; Dworkin, 2005). Mitchell (2000) wrote, “The framework I employ is based upon the premise that human minds interact with each other in many different ways, and that the variety of relational concepts pervading the recent analytic literature is best understood not as representing competing theories, but as addressing themselves to different, interwoven dimensions of relationality” (p. xv). Cultivating clinician somatic self-awareness, facilitation of patient/client somatic self-awareness,

and revising theoretical perspectives to include somatic interaction represent cohesive aspects of relational psychodynamic practice.

Historical and Contemporary Recognition of the Body in Treatment

Historically and in our contemporary times, clinicians practicing from relationally oriented psychodynamic/psychoanalytic perspectives have recognized the complex impact of traumatic event(s) on psychological, physiological, and neurological functioning. Since the late 19th century, trauma theories have included the study of physiological symptom development and treatment through facilitating *abreaction* as a way of working through traumatic memories and resolving physical symptoms (Brandell & Ringel, 2011; Ferenczi, 1930; Freud, 1936, 1961, 1966; Tabin, 2006). Advances in neuroscience improve our understanding of changes taking place on multiple neurobiological memory systems in the process of psychodynamic psychotherapy (Levy & Kächele, 2012; Schore, A., 2012). What was once speculation about the potential neurophysiological impact of traumatic event(s) is now empirically confirmed through advances in the field of neuroscience research.

Exploratory Research as a Starting Point

Exploratory research is a logical starting point to explore this clinical practice phenomenon. This is the first mixed-methods study (MMS) designed and implemented to explore why, when, and how psychodynamic clinicians are adapting somatic awareness and somatic interventions in their treatment of individuals who have been traumatized. Our current knowledge of the multiple levels of symptomatology that traumatic experience can cause is progressing as a result of discoveries in neuroscience. These new findings firmly dispel the persistent notion of “Cartesian disembodiment” (Damasio, 1994, p. 250). The concept that traumatic experience can be embodied and that this embodiment is inseparable from the mind is

scientifically supported and generally accepted (Kandel 2006; Levy & Kächele, 2012; Schore, A., 2012). Though we know very little about this phenomenon, our professional code of ethics requires that we investigate innovative clinical practices that emerge from treatment rooms.

Constructing a Manageable Scope of Research

Constructing a manageable scope of research for this study issue is challenging. With the proliferation and limited governance of body-based somatic models, narrowing the scope of research is necessary. Locating eligible research participants (psychodynamic clinicians who are using somatic body-based models in their treatment approach with traumatized individuals) requires casting a wide net across multiple professional clinical affiliates. While the development of and/or adaptation of neurobiologically informed treatment models for the treatment of trauma-related conditions has accelerated in the past few decades, no specific professional organizations have been created to bring psychodynamically oriented clinicians together to focus on the effects of integrating somatic concepts on theory and practice. Unfortunately, due to professional groups working in silos both within and between clinical orientations and experts in the field of traumatology, we have yet to reach a consensus for the terminology, mechanism of intervention, or collaborations for research and practice. Not only are neurobiologically informed models seldom, if at all, the focus of clinical outcome research, research on an *assimilative integration* of these models simply does not exist.

Limiting the scope of somatic models. Three somatic models, developed specifically for the treatment of trauma-related sequelae, have been operationalized for this study. The somatic treatment models selected for this study are Somatic Experiencing (SE) (Levine, 1997, 2010), the Trauma Resiliency Model (TRM) (Leitch & Miller-Karas, 2010, 2013), and Sensorimotor Psychotherapy (SP) (Ogden, Minton, & Pain, 2006). These approaches contain cross-model

neurobiological concepts and somatic intervention techniques. While only minimal research has been conducted on the selected body-based therapies, some clinical evidence supports the use of somatically based interventions (Courtois & Ford, 2009; Levine, 2010; Porges, 2011; Ringel & Brandell, 2011; Schore, A. N., 2003, 2012; Van der Kolk, 2014).

Psychodynamic Theory and Practice Integration and Synthesis

Treatment processes are complex and challenging to study. Establishing a clear process construct is integral to examining this study issue. While the meanings of *integration* and *synthesis* have similarities, the distinctions between the two are useful for studying the decision-making processes of psychodynamically informed clinicians who use somatic awareness and somatic interventions in their treatment approach with individuals who have been traumatized. Practice and research integration can be organized by type and degree of integration (Castonguay, Eubanks, Goldfried, Muran, & Lutz, 2015). The concept of *synthesis*, defined as “combining of elements into a whole” (Oxford Desk Dictionary and Thesaurus, American Edition, p. 413), most accurately describes the clinical elements to be explored in this proposed research. One type of psychotherapy integration, *assimilative integration*, “involves remaining anchored in a primary theoretical orientation while thoughtfully integrating techniques and principles from other orientations,” and best captures the meaning of synthesis posed for this investigation (Castonguay et al., 2015).

Assimilative Integration

This study will also contribute to a gap in empirical literature that discovers the ways that psychodynamic clinicians are integrating somatic body-based concepts adapted from somatic models with trauma-focused psychodynamic theory and practice. This level of integration is articulated as *assimilative integration*, and reflects a theoretical synthesis that maintains the

primary practice orientation (Gaete & Gaete, 2015; Castonguay, Eubanks, Goldfried, Muran, & Lutz, 2015; Norcross & Karpiak, 2012; Norcross & Pfund, 2013; Norcross & Rogan, 2013). Though clinicians from other orientations are also adapting somatic methods in their treatment approach, the objective of this study is to explore the use of somatic awareness and somatic interventions from a psychodynamic theory and practice perspective. Castonguay et al. (2015) suggest “for clinicians, an assimilative approach allows for an expansion of clinical repertoire without shaking the foundations of their most typical ways of practicing” (p. 369). This research deepens our understanding of the potential clinical benefits of the synthesis of somatic concepts by psychodynamic clinicians. It also offers us an additional relational understanding of the ideas and relational application of psychodynamic theories in our practices with individuals who have been traumatized.

Evidence-based Practice and Practice-based Evidence

This study bridges the gap between the research/practice paradigms of evidence-based practice (EBP) and practice-based evidence (PBE). Psychodynamic practice has a long history of heuristically informed clinical practice that leads to revising theoretical concepts, developing clinical outcome research, and improving clinical practice in our profession (Schoe, A. N., 2003; Schoe, J. R., 2012). Again, due to advances in neuroscience research, our current knowledge about the impact of traumatic events on human beings is unprecedented and must be considered in re-thinking relational psychodynamic concepts. Incorporating this knowledge to advance clinical social work theory and practice with individuals who have been traumatized is an ethical responsibility. This mixed-methods exploratory study reflects the logical next steps towards operationalizing empirical research of new clinical constructs that demonstrate the ways that psychodynamically oriented clinicians’ use of somatic awareness and somatic interventions

in their treatment of individuals who have been traumatized. The mixed-method study (MMS) design developed for this research supports equally valuing evidence-based practice and practice-based evidence.

Outline of Chapters

Chapter I establishes the purpose of researching this study issue, statement of the study issue, rationale for the study, rationale for phased treatment, and the psychodynamic theoretical framework for the study. In addition, this introduction chapter begins to lay the foundation for the importance of this research topic, and its relevance to clinical social work practice.

Chapter II, the review of the literature, begins by emphasizing the apparent gap in the literature on this study issue. Next, the construct of psychological trauma is articulated that has been developed for this research project. The review of the literature begins with a single qualitative research project specific to this study issue. The next section contains an overview of the three body-based treatment approaches (Somatic Experiencing, Trauma Resiliency Model and Sensorimotor Psychotherapy) selected for this study, including the related research and a rationale for why these three models are being operationalized for the study. The literature review continues with a section specific to psychodynamic psychotherapy, including psychodynamic psychotherapy as an evidence-based practice; psychodynamic somatic phenomena; contemporary perspectives on somatic phenomena; and the use of somatically informed transference and countertransference. This chapter concludes with a brief overview of specific contributions from neuroscience to our understanding of the impact of traumatic event(s) and of current evidence-based practices for the treatment of PTSD.

Chapter III details the methodology designed for this study. This chapter begins with addressing the rationale for choosing exploratory research for the study of somatic awareness

and somatic intervention use by psychodynamically informed clinicians in their treatment of individuals suffering from PTSD and trauma-related conditions. The chapter continues with reiterating the purpose of the research and presenting the specific research questions to be explored. Next, the philosophical stance underlying the methodological choice is explained. The following section presents the research design and rationale for the research design; the research sample; and details related to the survey instrument development process, as well as a description of the survey instrument itself as designed for this research. The next section conveys the data collection plan, data analysis plan, ethical considerations, and informed consent. The chapter content proceeds with an examination of study feasibility and a discussion of the testing process of the survey instrument. Lastly, the purpose of the study and methodology are summarized.

Chapter IV presents the results of this mixed-methods study (MMS) research. The analyzed quantitative and qualitative data are detailed in tables. Differences between the *primary study cohort* and *excluded study cohort* are described. This chapter concludes with a summary of the key findings from the quantitative and qualitative data.

Chapter V focuses on a discussion of key research findings. This discussion integrates quantitative and qualitative findings and the ways that the findings are supported or not by the empirical and theoretical literature. The chapter will close with a discussion of the limitations of the study, implications for future research, implications for clinical social work practice, and implications for education.

CHAPTER II

Review of the Literature

The literature reviewed for this dissertation research project establishes a framework for exploring the decision-making processes of psychodynamically informed clinicians who use somatic awareness and somatic interventions in their treatment approach with individuals who have been traumatized. This framework requires the inclusion of interdisciplinary theoretical and empirical literature. Embedded in this study issue is a call for theoretical reconsideration of some core psychodynamic concepts. Empirical support for the use of neurobiologically based somatic concepts is extremely limited and an understanding of the degree to which these concepts are synthesized with psychodynamic practice has been strictly theoretical. This leads us to another challenge; how do we build upon and adapt relevant advances in neuroscience that illuminate our understanding of the impact of traumatic event(s) on the mind and body within our psychodynamic perspectives? The intent of this literature review is to *link* theoretical ideas from different disciplines, from historical and contemporary perspectives on the psychodynamic treatment of individuals who have been traumatized, and from differing epistemological positions commonly conforming to an evidence-based practice or a practice-based evidence stance.

The literature review begins with formulating a construct of psychological trauma developed for use in this study. Next, the limited research specific to this study issue is presented. The section that follows contains an overview of the three body-based treatment approaches (Somatic Experiencing [SE], Trauma Resiliency Model [TRM], and Sensorimotor

Psychotherapy [SP]) selected for this study, including related research and a rationale for why these three models are being operationalized for use in the survey instrument (Appendix E) developed for this research project. A comprehensive search of relevant databases (Cochrane Database of Systemic Reviews [CDSR], PsycARTICLES [EBSCO], PubMed.gov, The Published International Literature on Traumatic Stress [PILOTS], and Google Scholar) was conducted initially and post-data collection phase of this research project. The literature review continues with a section pertinent to psychodynamic practice, including psychodynamic practice as an evidence-based practice; psychodynamic somatic phenomena; and contemporary considerations on transference and countertransference. This chapter concludes with a brief overview of specific contributions from neuroscience to our understanding of the comprehensive impact of traumatic event(s) and with current evidence-based practices for the treatment of PTSD. Clarification of key terms and definitions used throughout this literature review are listed in Appendix A.

An important awareness regarding this study issue is the fact that current treatments for PTSD, Complex PTSD, and other trauma-related conditions continue to be in the process of developing an adequate research base (Brandell & Ringel, 2012; Committee on the Assessment of Ongoing Effects in the Treatment of Posttraumatic Stress Disorder, & Institute of Medicine, 2014; Courtois & Ford, 2009). Somatic treatment models like SE, TRM, and SP are gaining recognition even though there is extremely limited empirical research. Anecdotal evidence suggests that psychodynamically informed clinicians are increasingly adapting somatic models in their treatment of individuals who have been traumatized. The integrative practice and research concept of *assimilative integration*, previously described as “remaining anchored in a primary theoretical orientation while thoughtfully integrating techniques and principles from other

orientations,” may assist in providing a necessary framework to explore promising treatment approaches such as the synthesis of somatically based models included in this study with psychodynamic psychotherapy (Castonguay et al., 2015). A gap exists in research that focuses on treatment approaches utilizing assimilative integration. Exploring the synthesis of somatic awareness interventions among psychodynamically oriented clinicians begins to bridge this gap in clinical research. In light of these gaps in the literature, this introduction provides a more in-depth understanding of psychotherapy integration and specifically of the *assimilative integration* approach for clinical practice and research.

Research on Psychotherapy Integration

This research project explores the decision-making process of psychodynamically informed clinicians who use somatic awareness and somatic interventions in their treatment approach with individuals who have been traumatized. Integrating different theoretical orientations as a distinct interest of scientific inquiry has a relatively brief history beginning in the 1970s. Survey research of clinicians (N=390) conducted in 2012 identified that 38 percent of participants identify as “integrative/eclectic,” reflecting a steadily growing trend of clinicians utilizing some degree of an integrative approach (Norcross & Rogan, 2013). One study that identifies future trends in psychotherapy forecasts an increase in integrative therapy and a belief that “breakthroughs in neuroscience will increase the impact of psychotherapy” (Norcross, Pfund, & Procheska, 2013). Research on integrated approaches has fallen outside of the governing research paradigms during the past 45 years.

This research-practice gap is apparent in this literature review. One consequence of the gap in the literature on psychotherapy integration is confusion as to the terminology and conceptual understanding of different types of integration (Gaete & Gaete, 2015; Wachtel,

2010). The term *assimilative integration* is closely aligned with the intent of this study of the synthesis of somatic awareness and somatic interventions among clinicians practicing from a psychodynamic orientation. Beitman, Goldfried, & Norcross (1989) delineated, “integration commonly denotes the conceptual synthesis of diverse theoretical systems.” Utilizing a conceptual framework of *assimilative integration* will provide a way to understand the decision-making process of why, when, and how psychodynamically oriented clinicians synthesize somatic awareness and somatic interventions in their treatment approach with individuals who have been traumatized.

Basic Constructs of Psychological Trauma

Psychological trauma can be conceptualized and categorized in multiple ways. For the purpose of this study, the meaning of psychological trauma has been articulated from well-established descriptive concepts to allow for a broad clinical point of view. A psychodynamic orientation infers a developmental perspective. Any concept of trauma can be considered in terms of developmental questioning. How might what has happened to an individual in the past have been experienced as traumatic, unconsciously and/or consciously, and how might it have influenced a person’s psychological and relational functioning? To emphasize the multiple perspectives found in the literature on psychological trauma a taxonomy of trauma that categorizes several constructs of psychological trauma has been included in Appendix A. Traumatic events can have a wide range of lasting effects on individuals, relationships, and communities. Even though each of the categories of trauma in Appendix A offers useful ways of understanding the potential effects of traumatic events on an individual, an elaboration on all the categories is beyond the scope of this review.

Concepts of Psychological Trauma for this Research Project

To establish a comprehensive concept of psychological trauma for this study the following three concepts have been selected and developed for this study: (a) *Diagnostic and Statistical Manual of Mental Disorders* (5th ed., American Psychiatric Association, 2013); (b) complex trauma; and (c) early relational trauma. These three concepts of psychological trauma are common modes upon which psychodynamically informed clinicians base assessment, diagnosis, and treatment of traumatized patients. By interweaving these three concepts, a clinically rich and psychodynamically informed meaning of psychological trauma will be established for use in this research project. Study participants will be oriented to these three perspectives of psychological trauma in the introduction of the Internet survey instrument located in Appendix E. More in-depth information about the DSM-5 diagnostic criteria for PTSD, Complex PTSD, and Early Relational Trauma, and the use of these three concepts for this study can be found in Appendix C.

Research Specific to the Study Issue: A Gap in the Literature

An evident gap exists in empirical and theoretical literature related to the specific study issue of the decision-making processes of psychodynamically informed clinicians who use somatic awareness and somatic interventions in their treatment approach with individuals who have been traumatized. Again, the anecdotal evidence for the use of neurobiologically informed somatic concepts is substantial. In this section, one qualitative study specifically focusing on this study issue and one article detailing a proposed study aligned with this study issue are reviewed.

Single Qualitative Study

A gap exists in the literature on the use of somatic awareness and somatic interventions by psychodynamically informed clinicians in the treatment of trauma-related conditions. Only

one single qualitative study published by Hays (2014) specifically focused on the use of Somatic Experiencing (SE) by psychodynamically oriented clinicians. This researcher determined that “working with individuals within the context of psychodynamic orientations while amalgamating somatically based interventions has not been widely documented as a method of re-regulating the nervous system” (p. 4). Hays’ (2014) study provides an empirical precedence for the use of somatic interventions and somatic awareness by psychodynamic clinicians. Some of the clinical decision-making processes specific to addressing symptoms of dysregulation were identified in the qualitative interviews.

In this phenomenological case study, Hays (2014) interviewed psychodynamic psychotherapists who are also trained as Somatic Experiencing (SE) practitioners to explore the integration of the two approaches. The participants included four licensed psychodynamic psychologists/SE practitioners. Information related to selection criteria, qualitative process for conducting in-depth interviews, and data analysis methods were reported in this study. Reliability was addressed in the process of data collection and analysis. The researcher implemented “in-case analysis” and “cross-case analysis” to identify emerging themes in her qualitative interview data (p. 34).

Key findings. The key findings were categorized into two broad themes: one theme was “approach effects of integration” and the second was “evidence-based best practices” (p. 33). A theme identified by all participants, when clinically warranted, was the use of SE as a component part of their psychodynamic approaches increased the effectiveness of the treatment. While Hays (2014) did not directly examine the decision-making processes among her participants, the process of determining when to use of SE infers a clinical decision-making process is an assimilative aspect of clinical treatment. An important purpose of this study was to raise

awareness for the potential use of SE along with psychodynamic psychotherapy in the treatment of trauma-related conditions. All participants in the study acknowledged that establishing an evidence-base for the integrated use of SE is important to the profession. This research study and the project conducted by Hays (2014) share similar goals of demonstrating the need to further explore psychodynamic clinicians' use of somatic approaches as an emerging treatment phenomenon and to establish a foundation towards further research.

A Psychodynamic Neurobiologically-Informed Phased Oriented Approach

One article proposing a research study relevant to the study issue of psychodynamic treatment of individuals who have been traumatized, detailed an assimilative integrated psychodynamic approach with neurobiologically informed interventions. Wöller, Leichsenring, Leweke, & Kruse (2012) presented a treatment approach overview that “integrates a variety of trauma-specific imaginative and biologically grounded resource-oriented techniques” within a psychodynamic framework (p. 69). The researchers describe specific integrated techniques as “ensuring safety, resource-oriented techniques, resource activation, [and] imaginative techniques” (pp. 72, 79, & 80). The described techniques are consistent with SE, TRM, and SP concepts of somatic awareness and somatic interventions. The researchers' aims were to strengthen the evidence base for psychodynamic treatment of PTSD through the use of somatic treatment interventions and to develop principles for a treatment manual on how to use neurobiologically informed skills as a component of psychodynamic treatment. Wöller et al. (2012) stated plans for a randomized controlled trial to determine the efficacy of this blended approach, but no information could be found to substantiate that this research was underway. In addition, all efforts to contact the researchers were unsuccessful.

Somatic Treatment Models

The three neurobiologically informed models (SE, TRM, and SP) that are operationalized for exploring this study issue are reviewed. While there are many body-based models that may be used in similar assimilative integration within psychodynamic theory and practice, preliminary research underscored the popularity of these three novel approaches to treatment with individuals who have been traumatized. In this section, the rationale for selecting these models, and a review of the empirical and theoretical literature related to these models is addressed.

Rationale for Selecting SE, TRM and SP for This Study

Somatic Experiencing (SE), Trauma Resiliency Model (TRM), and Sensorimotor Psychotherapy (SP) are the three somatic models selected to explore the decision-making process of psychodynamically informed clinicians who use somatic awareness and somatic interventions in their treatment approach with individuals who have been traumatized. Each of these models shares common neurobiological underpinnings, similar adaptations of somatic concepts, and common considerations for the clinical utility of somatic interventions. These shared features evident across models have been operationalized for use in the development of a survey instrument (Appendix E) used to explore this clinical phenomenon. While each of these best-known somatic models shares enough similarities to include all three models for the purpose of this research project, the models are also diverse in many aspects, the elaboration of which goes beyond the scope of this dissertation project. Among the three models—SE, TRM and SP—each utilizes somatic awareness and somatic interventions to: (a) alleviate central nervous system dysregulation; (b) develop resources to increase self-efficacy; (c) address posttraumatic stress responses; and (d) actively facilitate reconsolidation of traumatic memory. To date, adequate research has not yet occurred to substantiate any somatic treatment method as an

effective evidence-based practice approach. In addition, no research exists exploring the decision-making process of psychodynamically informed clinicians who use somatic awareness and somatic interventions in their treatment approach with individuals who have been traumatized.

Development of Somatic Experiencing (SE)

Somatic Experiencing (SE) is a body-based trauma resolution therapy developed by Levine (1998). Somatic Experiencing was the first body-based approach from the historical lens, of the three models selected for this dissertation. Around 1973, Levine began studying stress and trauma drawn from the disciplines of medicine, biology and physics began developing the trauma-resolution therapy called Somatic Experiencing (Levine, 1997). The SE model is based on psycho-education and body-oriented psychotherapy grounded in neurobiology and mind-body interconnections. Levine (2010) considered that a response to “trauma is fundamentally a highly activated incomplete biological response to threat, frozen in time,” and “as a functional and largely reversible distortion in the multi-dimensional somatic and autonomic pathways that meld the mind and body” (p. 120). The SE method focuses on awareness of sensations and gestures to understand mind-body connections experienced in past trauma and in the resolution process.

Somatic Experiencing treatment is a phased approach that utilizes specific techniques to first reduce or resolve dysregulating physiological trauma-related symptoms by “accessing various instinctual reactions through one’s awareness of physical body sensations” (Levine, 2010, p.10). During the first phase, a traumatized individual is supported to stabilize, and then slowly develop awareness of somatically based sensations activated by the memory or felt-sense of a traumatic event. The core skills and concepts involve: (a) an understanding of implicit memory; (b) observation of “intentional non-conscious movement” resulting from the

individuals who have been traumatized “felt sense”; and (c) “renegotiation” in “the gradual, resourced discharge of the highly compressed survival energies, accompanied by a ‘retrospective’ completion of biological defensive and orienting responses that were frozen at the time of overwhelm” (Levine, 1998, pp.116-119).

Research on Somatic Experiencing (SE). Although few studies have been conducted specifically on SE, valuable contributions have been made by pioneering researchers and clinicians in support of this novel form of therapy that “focuses on resolving the symptoms of chronic stress and post-traumatic stress” (Payne, Levine & Crane-Godreau, 2015, p. 1). Most studies explore the adapted use of SE as an intervention in the treatment of individuals who have been traumatized. A review of SE research studies serves to deepen our understanding of the use of SE as a treatment model for trauma-related conditions and to begin to formulate variables to determine treatment outcome indicators. Special attention is paid to the ways that SE is described and how the basic features of SE are modified. Identifying how clinicians adapt somatic awareness and somatic interventions directly relates to the study issue of why, when, and how psychodynamically informed clinicians adapt these skills for the treatment of individuals who have been traumatized.

Research Studies and Post-Disaster SE Intervention. Primarily, research studies related to SE involve the adapted use of SE as a brief intervention in post-disaster environments. Reviewed in this section are two studies developed to explore the efficacy of SE-adapted interventions with tsunami victims (2004) in India and Thailand, and two studies implemented with social service workers after Hurricanes Katrina and Rita (2009). Interventions used in the later studies are described as SE/TRM interventions. The researchers state that TRM is an adaptation of SE. An important point of emphasis in the review of these studies is the

modification of SE because of the relevance this process lends to exploring how psychodynamically informed clinicians adapt somatic awareness and somatic interventions in their treatment approach with individuals who have been traumatized.

Post-Disaster Studies: SE and Tsunami in Thailand and India. Two studies investigating the treatment effects of adapted somatic experiencing techniques were conducted with survivors of the 2004 tsunami in Thailand and India. Leitch (2007) acknowledges that findings of an exploratory study of adult and child survivors of the 2004 tsunami in Thailand must be interpreted cautiously due to the small sample size and lack of a comparison group. In an effort to demonstrate an adaptation of SE as a brief intervention, Leitch (2007) assessed the efficacy of one-to-two sessions of somatic experiencing treatment provided to 53 adult and child survivors. She described SE as “an integrative, mind-body trauma treatment ... that focuses on the resolution of posttraumatic-stress activation through re-establishing self-regulation” (Leitch, 2007, p. 11). The adapted model was referred to as *Trauma First Aide* (TFA). Methodological challenges identified were the short amount of time to design and implement research protocols, cross-cultural ethical concerns, and the reality that treatment for psychological distress may not be a priority in post-disaster conditions.

Quantitative data were collected using a symptom tracking form, and qualitative data were collected in a structured written format incorporating narratives describing participant responses to somatic interventions. Data gathered before and after treatment revealed that “67% of participants had partial to complete improvement in reported symptoms and 95% had complete or partial improvement in observed symptoms” (Leitch, 2007, p.11). Treatment outcomes were measured using culturally-adapted subjective measures and the SE skill of *tracking*, which asks participants to identify and track/self-observe the three most distressing

physiological symptoms before, immediately after, and five days after the intervention, and at a one-year follow-up.

This study was an admirable undertaking reflecting a high degree of effort to implement culturally informed interventions. The researchers were sensitive to the idea that a Western perspective on traumatic experience was not the same as an Eastern perspective on traumatic experience. While a tsunami is a traumatic event that cannot be compared to other types of trauma (interpersonal violence, childhood abuse, rape, etc.), the victims share the reality of bodily-impact of an assault and the reported symptoms of physical pain, sleep problems, headaches, flat affect, and anxiety/agitation—all common symptoms of survivors of other types of traumatic event(s). Leitch (2007) recommended that additional research be conducted to determine if early intervention methods for trauma survivors are more effective than treatment interventions offered months or years after a traumatic event.

A second study conducted with survivors of the 2004 tsunami in India. This study demonstrated similar results to the previously reviewed research. Parker, Doctor, & Selvam (2008) implemented an uncontrolled field study on the “durability” treatment outcome effects of an adapted SE somatic therapy (p. 103). For this study, the researchers defined SE as a treatment based on the understanding that in response to “threatening events,” “a dominant neurological reaction occurs involving orienting, fight, flight, or freeze,” and that SE-type approaches “attempt to gain careful access to these involuntary responses, build awareness of bodily reactions, and actually process them to an adaptive resolution” (p. 104).

A weakness of this study may be related to the collection of data by researchers who assessed the rate of change in trauma-related symptoms measured immediately after the first SE session. The researchers did not analyze the rate-of-change data. Because the reduction or

resolution of physiological symptoms associated with the traumatic event(s) was collected after the treatment session, analyzing data outcomes on rate of change measures to strengthen validity may have been useful. Doctor, Parker, & Selvam's study (2008) was strengthened by the attention they paid to fidelity monitoring (assuring that each researcher was closely adhering to the treatment intervention protocol) of a four-staged treatment intervention using somatic skills adapted from SE.

The researchers also developed a scale to quantify lesser to greater degrees of loss among the participants. The researchers attempt to use *Degree of Loss* and *Degree of Traumatization* scales failed. Initially, the researchers determined that these two measures would create two new analyzable variables. In the discussion of the results, the researchers deemed the scales unusable for data analysis. The degrees of loss were measured in five categories, whereby the higher the number of categories, the higher the degree of loss. One category was loss of family, and if this were the only category indicated, the data would reflect a low degree of loss and low degree of traumatization. This degree category measure would not actually be a quantifiable variable due to the highly subjective nature of traumatic loss. Potentially, the loss of family could be as distressing as, or more distressing than, other forms of loss.

Even with these apparent limitations, both research studies described above in examining the adaptation of somatic experiencing are relevant to this study issue because of emerging applications of adapting somatic awareness and somatic interventions. Each of these field-based studies adapted SE techniques to accommodate cultural and sociopolitical factors, types of trauma, and environmental specificity. The demonstrated use of SE in these studies supports the applicability of adaptation and modification of SE in other traditional and non-traditional clinical settings.

Post-disaster research: SE and Hurricanes Katrina and Rita. In a third exploratory disaster-related study, Leitch, Vanslyke & Allen (2009) investigated SE treatment with social service staff providing services in the aftermath of Hurricanes Katrina and Rita. A total of 272 social service staff participated in psycho-educational groups; 91 social service staff self-selected to participate in the two sessions of SE-adapted treatment referred to as *TRM* or *Trauma Resiliency Model*. Allen, Leitch, & Vanslyke (2009) described somatic experiencing as “an integrative approach ... that focuses on the biological basis of trauma and the reflexive, defensive ways the body responds to threat and fear” (p. 11). Of 91 participants who elected to participate in two treatment sessions, 51 participants constituted a matched comparison group, in allowing a propensity score matching method to identify a statistically similar comparison group. The method used to create a non-randomized comparison group was an innovative way to ethically create a comparison group in a difficult research environment. The comparison group was made up of social service workers who self-selected to not continue beyond the single psycho-educational session. In other words, no treatment was withheld to create a comparison group, while at the same time enough demographic data was collected to allow for propensity score matching.

The researchers found that, at a three- to four-month follow-up, participants from both treatment and comparison groups demonstrated an increase of psychological symptoms. The increase in trauma-related symptoms is not unusual in this type of population. However, the treatment group had significantly less increase in symptoms. In addition, the measures of resilience suggested a significant increase in resilience for the treatment group. Although the results of these exploratory research studies indicate a need for more rigorous research methodologies to confirm the efficacy of somatic interventions, they contribute to the literature

by demonstrating the cross-cultural adapted use and implementation of somatic interventions.

Trauma Resiliency Model

Trauma Resiliency Model (TRM) is a somatically oriented treatment approach for traumatic stress adapted, in part, from somatic experiencing (SE). Leitch and Miller-Karas (2012) developed educational and instructive training manuals adapting SE as “a condensed course designed to teach skills to stabilize the person’s nervous system and to reduce and/or prevent the symptoms of traumatic stress” (p. 11). No formal research has been published on the use of TRM in the treatment of trauma-related disorders. The Trauma Resource Institute lists the two studies with social service workers reviewed in the section on SE, evaluation reports from international train-the-trainer projects, and pending research proposals.

The TRM description of somatic awareness skills and somatic intervention skills provides a useful overview of these skills. Table 1 provides a brief description of the nine core and clinical applications taught in the TRM approach. TRM training has been developed as a two-level skills-based training, and offers a feasible and affordable way for psychodynamic clinicians to acquire somatic awareness skills and somatic intervention techniques. Many of the skills described in Table 1 are similar to descriptions of techniques identified in the literature on SE and SP. A specific area of inquiry proposed in this study relates to the decision-making process of psychodynamically informed clinicians who use somatic awareness and somatic interventions in their treatment approach with individuals who have been traumatized. The survey instrument described in Appendix E designed for this dissertation study draws from some of the somatic skills noted in Table 1.

Table 1

Trauma Resiliency Model Skills (Miller-Karas & Leitch, 2012)

<p>1) Tracking: Monitor sensations by clinician and patient.</p>	<p>Method: Elicit self-report using invitational language and providing observational responses.</p>
<p>2) Resourcing: Identify external resources, internal experiences, and body resources specific to the patient.</p>	<p>Method: Use positive or neutral factors to create non-traumatic sensations.</p>
<p>3) Resource Intensification: Strengthen awareness of the resource to override attention that automatically goes to unpleasant sensations.</p>	<p>Method: Ask additional questions about resource to expand the sensations associated with the resource.</p>
<p>4) Grounding: Be fully present in the moment.</p>	<p>Method: Facilitate somatic awareness of direct contact with the ground or with something that provides support to the body.</p>
<p>5) Amp Down or Ramp Up: Manage and intervene to regulate states of hyper-arousal and hypo-arousal.</p>	<p>Method: Identify and practice strategies to self-regulate when hyper-aroused or hypo- aroused.</p>
<p>6) Shift and Stay: Learn to shift from distress, discomfort and/or overwhelm.</p>	<p>Method: Utilize resourcing, grounding, and amp down or amp up strategies to sustain a healthy regulated state.</p>
<p>7) Titration: Gradually support the nervous system to adjust to each level of activation without being overwhelmed.</p>	<p>Method: Work with small increments of arousal.</p>
<p>8) Pendulation: Facilitate the natural swing in the nervous system between sensations of well-being and sensations of discomfort, constriction, or tension.</p>	<p>Method: Alternate between sensations associated with traumatic and resource sensations.</p>
<p>9) Complete Defensive Responses: Use specific skills to complete the responses, reset the nervous system and restore balance.</p>	<p>Method: Tracking. Create distance and invite the patient to imagine completing the defensive response.</p>

Sensorimotor Psychotherapy

Of the three somatic methods selected for this research, Sensorimotor Psychotherapy (SP) is the only one that demonstrates a synthesis of somatic awareness and somatic interventions within a psychodynamic perspective (Minton, Pain, & Ogden, 2006). The authors clearly state that SP “builds on traditional psychotherapeutic understanding but approaches the body as central in the therapeutic field of awareness and includes observational skills, theories, and interventions not usually practiced in psychodynamic psychotherapy” (Ogden, Minton, & Pain, 2006, p. xxvii). The study issue of somatic awareness and somatic intervention use by psychodynamic psychotherapist is a timely inquiry to explore the possible merging of traditional psychodynamic practice with body-based models such as Sensorimotor Psychotherapy (SP). Minton & Ogden (2000) describe SP as “a method for facilitating the processing of unassimilated sensorimotor reactions to trauma and resolving the destructive effects of these reactions on cognitive and emotional experience” (p. 149). Because the SP approach integrates psychodynamic theoretical concepts (observing ego, auxiliary ego, transference, and countertransference), study participants trained in SP may respond to survey questions in Appendix E about adapting somatic awareness and somatic interventions from a psychodynamic perspective with more clarity.

Several somatic awareness and somatic intervention techniques articulated in the literature on SP are consistent with the techniques found in the literature on SE and TRM. Minton & Ogden (2000) use the term *mindfully tracking* to mean observing the patient’s physiological changes when indication of “hyperactive” or “hypoactive” arousal of the patient’s nervous system occurs in response to traumatic memory (Minton & Ogden, 2000, p. 155). The term *body-reading* is used in SP to describe the somatic awareness skill of tracking gestures and

changes in posture. Supporting a patient to complete a thwarted defensive response is a primary focus of SP and similar to the skills of titration and pendulation in SE and TRM. All three models provide observational feedback to patients regarding physiological changes and gestures that may indicate a need for the completion of a defensive response that has been reactivated in the therapeutic process. The self-observation activity of mindfulness is integrated into SP as an essential skill for patients to develop. Minton & Ogden (2000) define *mindfulness* as, “A state of consciousness in which one’s awareness is directed toward here-and-now internal experience, with the intention of simply observing rather than changing this experience” (pp. 163-164).

Pilot quantitative study adapting SP. Langmuir, Kirsh, and Classen (2012)

implemented a quantitative pilot study adapting the “theoretical framework of SP ... integrating cognitive, affective, and somatic responses to trauma” into a twenty-week group therapy format (p. 214). The researchers introduced initial evidence substantiating the benefits of using a body-oriented approach for group psychotherapy. Participants were 10 women with a history of childhood abuse. This quasi-experimental research design included a nonrandomized sample and a waitlisted control group that consisted of women who declined to participate in the study. Pre- and post-scales (Scale of Body Connection, SBC; Somatic Dissociative Questionnaire, SDQ-20; Dissociative Experiences Scale, DES; Inventory of Interpersonal Problems, IIP-32; Soothing Receptivity Scale, SRS) were used in the area of degree of body connection, somatic dissociation, dissociative experience, interpersonal problems, and capacity to be soothed.

Although the sample size of the study was too small to generalize the results to the general population, the preliminary data indicated significant findings for increased body awareness, $F(2,14) = 11.52, p = .001$, and improvement in decreased dissociative symptoms using a Dissociative Experiences Scale, $F(2,4) = 2.45, p = .06$. Participants of the study also

demonstrated increased capacity to be soothed, and experienced a sense of interpersonal safety in the group setting. The researchers concluded that adapting the principles of SP has the potential to be effective for survivors of interpersonal violence. While the study did not declare a theoretical orientation, Sensorimotor Psychotherapy adheres to fundamental psychodynamic theoretical concepts, and the adaptation of somatic interventions from a psychodynamic perspective is relevant to this study.

Summary of Somatic Treatment Models

A gap in the literature is revealed in this section on Somatic Experiencing (SE), Trauma Resiliency Model (TRM), and Sensorimotor Psychotherapy (SP). Only a small number of exploratory research studies have been conducted. An additional search of key research databases revealed that no new or pending studies of these somatically based treatment models have been published during the completion of this research project. Several reports and informal case studies can be found in the literature that demonstrate cultural and environmental diversity in the ways these models can be adapted as treatment interventions for different types of traumatic symptomology (Carleton, 2009; Heller & Heller, 2004; Heller & Whitehouse, 2008; Marriott & Houghton, 2011; Wheeler, 2008). A review of these reports and case studies is beyond the scope of this dissertation project. Yet, a qualitative analysis of the several case studies and programmatic reports would be a valuable research contribution to understanding how these models are being culturally informed and adapted to intervene with diverse populations. As more adaptations of these somatic models are implemented, the cross-model phases and cross-model interventions would increase our understanding of key clinical processes emerging in the implementation of somatically based treatments.

Relational Psychodynamic Theory and Practice

Relational psychodynamic theory is the theoretical framework selected to conceptualize and explore expanding the modes of communication to explicitly encompass embodied somatic phenomena occurring between the clinical dyad. For the focus of this study, a more explicit understanding of interpersonal neurobiology is important to explore the decision-making processes of psychodynamically informed clinicians who use somatic awareness and somatic interventions in their treatment approach with individuals who have been traumatized. Specifically, this is the inclusion of an interpersonal neurobiologically informed space co-created between the clinician and client when they are working together to resolve trauma-related sequelae. Understanding and repairing past traumatic relational experiences of individuals who have been traumatized is fundamental to recovery (Herman, J., 1992, 1997; Tummala-Narra et al., 2012). Several developmental theorists include a focus on the body as central to psychological development.

A relational psychodynamic approach centers on relational concepts such as moment-by-moment intersubjective interactions, object relating, transference/countertransference phenomena, and reparative situational enactments spontaneously occurring between the clinical dyad (Berzoff, 2011; Bollas, 2011; Mitchell, 2000; Ogden, 2001, 2004). Psychodynamically oriented clinicians who synthesize somatic concepts are in essence engaging relationally with their clients through the use of somatic awareness and somatic interventions. This section of the literature review on psychodynamic relational theory and practice focuses on relational theoretical concepts that underscore inclusion of embodiment and somatically informed concepts.

Contemporary Psychodynamic Relational Theory

The evolution of a formal *relational psychodynamic theory*, initially appearing in theoretical literature in the 1980s as *relational psychoanalysis*, coalesced several classical psychoanalytic perspectives through a relational lens. Motivation for this theoretical shift is attributed to the experiences of some clinicians experiences of the classical psychoanalytic paradigm becoming too distant, cold, removed, austere, and depriving to effectively help many of their clients. Relational theories are conceptually linked to drive theory, ego psychology, object relations, and self-psychology (D. Levit, June, 14, 2014, citation as a presentation). This change towards a relational theoretical focus created a fundamentally different way of thinking about *classical psychoanalytic* concepts (Mitchel & Aron, 1999). Dworkin (2005) conceptualized “the relational interweave” as a way of working relationally and somatically with clinician/client misattunement by using body awareness as a “barometer of interpersonal interaction” (p. 169). From a relational perspective, sensations and all bodily experienced phenomena inhabiting the physical space between clinician and patient had become a practical part of the therapeutic process.

Historical and Contemporary Contributions

Historically over time through to the present, many theorists have made instrumental contributions to the development of relational psychodynamic theory. For the literature review, theorists whose concepts most influenced the theoretical framework for the study are referenced here (Bion, 1959; Bowlby, 1969; Fairburn, 1958; Ferenczi, 1929; Greenburg, 1986; Guntrip, 1969; Kohut, 1977; Mitchell, 2000; Ogden, 2004; Schore, A. N., 2012; Sullivan, 1940; Winnicott, 1960). Theoretical lines of division are naturally drawn in the course of theory development, and those lines can become points of demarcation between psychodynamic and

psychoanalytic schools of thought.

Contemporary psychodynamic relational approaches are historically informed by theorists who diverged from the predominant *intrapsychically* conceptualized theories towards more relationally engaged approaches (Fairburn, 1958; Ferenczi, 1929; Winnicott, 1960). In the context of psychoanalysis, this divergence is outlined as a fundamental theoretical shift from classical Freudian drive metapsychologies to psychological theories that place object relating and interpersonal relations as an alternative understanding of the same psychological phenomena (Aron & Harris, 2005; Berzoff, 2011; Gold & Stricker, 2001; Mitchell, 1999; Stark, 1999). In the most simplified way of stating this theoretical difference, *drive theory* explained human pathology as drive-seeking behavior, while the relationally oriented theories explained human pathology as object (relational)-seeking behavior.

Cautionary Concerns

Repercussions and reactions to the introduction of contemporary relational theoretical ideas continue to generate clinical practice advancements and cautionary debates about maintaining essential theoretically grounded psychodynamic therapeutic boundaries, especially in regard to self-disclosure and self-revelations (Berzoff, 2011). Slavin & Kriegman (2005) emphasized that while clinicians must change their “identity” to practice relationally, this change involves practicing with “a new sensibility, rather than a new set of rules and technical guidelines” (p. 105). Though a full review of the confluence of theoretical, sociological, philosophical, and epistemological evolution of ideas that accompanied the emergence of a relational psychodynamic approach is beyond this scope of this literature review, it is important to recognize the depth and strength of these influences in continuing to inform contemporary practice.

Mitchell & Aron (1999) cautioned against developing “criteria for inclusion and exclusion” that result in a certain doctrine of relational thinking and clinical practice. They amplified that, “Greenberg’s warning is surely worth heeding—the destructive impact of fundamentalism within psychoanalytic history is well known, and contemporary models are in no less in danger than was classical theory of becoming degraded into constrictive dogmatism” (p. xvii). This concern is worth repeating. Speculation about current observable patterns of exclusion, distancing, and professional segregation among psychodynamic theoretical schools of thought and psychodynamic/psychoanalytic clinicians warrants an open discourse.

Contemporary Psychodynamic Perspectives on Somatic Phenomena

Clinicians and patients may easily confuse affects and sensations. Akhtar’s (2009) definition of affect is historically oriented in 1890, clarifying that *affect* “was equated with energy and ‘strangulation’ of affect was seen as the cause of symptoms” (p.7). Purposeful observation of physiological sensations often referred to as tracking or observing in the somatic models selected for the study are coalescing factors in synthesizing body-based interventions with psychodynamic psychotherapy. Traditionally, the understanding of affects had included “physiological discharges” that led to the expression of emotion. The meaning of affect in psychological terminology is, “feeling or emotion” (Oxford Dictionary, American edition, p. 13). The current psychoanalytic definition of affect does not include sensations and is “customarily used in psychoanalysis for ‘emotion’ or ‘feeling’” (Akhtar, 2009, p. 7). Akhtar (2012) acknowledged that a definition for sensation belongs in the Dictionary of Analytic terms and that not including it was an oversight (personal correspondence, June, 30 2012).

Psychodynamic Relational Theory and Clinical Social Work

Psychodynamic relational theory and clinical social work theorists have a long history of

valuing the therapeutic relationship in all aspects of practice. The application of psychodynamic relational theory and treatment for the study moves far beyond the practice of psychoanalysis, with the theoretical perspective proposed in the study integrating concepts from neuroscience, attachment theory, regulation theory, and interpersonal neurobiology. Brandell & Ringel (2004) reference many social casework theorists that have contributed to relational psychodynamic theory development and how “social work practice arose from a tradition in which the idea of alliance and alliance building is almost inextricable from conceptions of treatment” (p. 550). Donald Winnicott was married to Clare Winnicott, a pioneering social worker and professional collaborator with her husband for 30 years. She deeply influenced Winnicott’s object relations theoretical thinking by sharing a biopsychosocial perspective that made many contributions to relationally oriented clinical social work practice (Kanter, 2009). Just as we now understand the early origins of relational dynamics in the history of psychoanalysis, it is important to clearly articulate specific salient aspects of the history of clinical social work that have equally contributed to relational theoretical concepts.

Transference/Countertransference and Somatic Experience

Through a psychodynamic relational lens, somatic experience expresses an embodied form of transference/countertransference phenomena. The relational subjective matrix co-created between clinician and client is informed through observation and exploration of somatic responses. In consideration of how we help our client’s fully complete affective communication, Maroda (1999) stated, “our minds do not cue us that we are feeling something strongly; our bodies do. Our minds inquire as to the origin and meaning of that feeling, and help us to manage those feelings. But without bodily sensation, there is no inquiry.” (p. 127). Somatic awareness and somatic interventions can inform the conscious and unconscious interactions of the clinical

dyad. Dosamantes-Beaudry (1997) chose the terms *somatic experience* and *somatic transference and countertransference* to acknowledge advancing psychoanalytic thinking related to psychological development and *intersubjective dialogue* (p. 517).

Psychodynamic Somatic Phenomena

Evidence of the clinical use of somatic phenomena is articulated in early psychoanalytic case studies and theoretical concepts. Freud used the term *somatic compliance* in 1905 to “underscore that hysterical conversion symptoms involve the participation of both the mind and the body” (Akhtar, p. 268). Assimilative integration of somatic awareness and somatic interventions within a psychodynamic orientation requires that clinicians maintain an awareness of their own sensations and include this awareness as part of their understanding of transference/countertransference phenomena. Schore, A. N., (2005) emphasized that two minds and two bodies are relating. Davis and Wallbridge (1981) conveyed how Winnicott’s concept of personalization intricately links the psyche and the body, stating that “personalization means not only that the psyche is placed in the body, but also that eventually, as cortical control extends, the whole of the body becomes the dwelling place of the self” (p. 41). Psychodynamic approaches can be brief, intermittent, or long-term, and can synthesize somatic interventions, including the somatic experience of the clinical dyad, as a way to support the working through of traumatic memory at a conscious and unconscious level.

Relational Psychodynamic Theory and Assimilative Integration

Gold and Striker (2001) proposed that a relational psychodynamic approach can be enhanced by an *assimilative integration* of interventions from other modalities such as Somatic Experiencing (SE), Trauma Resiliency Model (TRM), Sensorimotor Psychotherapy (SP), and similar models. To illustrate the longstanding tradition of synthesizing somatic concepts in

psychodynamic/analytic treatment, Ferenczi's (1929) description of his treatment approach reflected contemporary relational practice. He developed "the principle of relaxation and neocatharsis" as interventions to reduce a patient's suffering by using "relaxation therapy." He wrote, "It was easy to utilize these symptoms as fresh aids to reconstruction—as physical memory symbols, so to speak. But there was this difference—this time, the reconstructed past had much more of a feeling of reality and concreteness" (p. 119). Unfortunately during Ferenczi's era, his heuristically driven theoretical concepts were not well received by his contemporaries. Due to a "renaissance" of his theoretical contributions, he is now attributed with laying "the foundation for a relational perspective in psychoanalysis" (Rachman, 2007, p. 74).

Contributions from Neuroscience to the Treatment of Traumatic Stress

Over the past two decades, there has been a proliferation of neuroscience research studies and applications of this research to clinical theory and practice in the field of traumatology (Applegate & Shapiro, 2005; Kandel, 2006; Levine, 1997; Miller-Karas & Leitch, 2007; Ogden 2006; Payne, Levine, & Crane-Godreau, 2015; Rothschild, 2000; Scaer, 2001; Schore, 2003; Van der Kolk, Pelcovitz, Roth, Mandel, McFarlane, & Herman, 1996). The clinical impetus to address physiological dysregulation in the treatment of trauma-related disorders is based on compelling neuroscientific research (Gerber, 2012; Pole, 2007; Porges, 2011; Schore, A. N., 2003, 2012; Solomon & Siegel, 2003). In the assessment and diagnosis of individuals who have been traumatized, consideration of biological vulnerabilities is not new to psychodynamic practice. The important focus of the study is the synthesis of somatic awareness and somatic interventions as an integral aspect of psychodynamically informed treatment.

Ethical Responsibility

Anecdotal evidence suggests that the use of somatic awareness and somatic interventions

are being synthesized by psychodynamic clinicians in their trauma-focused treatment approaches. We have an ethical responsibility to acknowledge this phenomenon and to explore the potential benefits and risks associated with utilizing this synthesized approach. Many researchers, clinicians, and theorists contend that state-of-the-art treatment necessitates an integration of neurobiological knowledge with clinical practice (Anderson, 2008; Aposhyan, 2004; Courtois & Ford, 2009; Kandel, 2006; Kolk, 2014; Kolk, Pelcovitz, Roth, Mandel, McFarlane, & Herman, 1996; Levine, 1977, 1997, 2010; Lyons-Ruth, 2009; Miller-Karas & Leitch, 2007; Ogden, 2006; Payne, Levine & Crane-Godreau, 2015; Porges, 2011; Rothschild, 2000; Scaer, 2001; Schore, A. N., 2003; Siegel & Solomon, 2003; Stern, 1985). Other researchers and clinicians contend it would be irresponsible to offer treatments or interventions that have not met the currently defined “levels of evidence” in discouraging the use of “unsupported” treatments (Foa, Keane, Friedman & Cohen, 2009, p.541; Weine, Danieli, Silove, Van Ommeren, Fairbank, & Saul, 2006). Ethically, clinicians have a responsibility to build on this well-established knowledge base and to develop rigorous empirical studies that determine the efficacies of approaches that synthesize somatic-oriented concepts with psychodynamic practice.

Psychodynamic Treatment: An Evidence-Based Practice

Empirical confirmation of the efficacy of psychodynamic psychotherapy provides a basis for the study of synthesizing somatic awareness and somatic interventions with psychodynamic treatment of individuals who have been traumatized. Although psychodynamic psychotherapy is an evidence-based practice, research specific to the psychodynamic treatment of PTSD and trauma-related disorders is sparse. There have been 28 randomized clinical trials (RCTs) conducted on psychodynamic psychotherapy (Shedler, 2010). In particular, De Jonghe et al.

(2012) conducted a meta-analysis of 46 randomized controlled trials on psychodynamic psychotherapy outcomes. The researchers stated, “We now believe there is unambiguous empirical support” for the efficacy of psychodynamic psychotherapy (De Jonghe et al., 2012, p. 286).

In terms of psychodynamic approaches specific to the treatment of individuals suffering from trauma-related disorders, Drisko and Simmons (2012) noted only one study on PTSD was identified in an examination of “experimental research methodologies privileged by the Cochrane Collaboration criteria” to assess the efficacy of psychodynamic psychotherapy (p. 380). The effect sizes for the “sole PTSD study were moderate” (Drisko & Simmons, 2012, p. 388). Abbas et al.’s (2014) review of “short-term psychodynamic psychotherapies for common mental disorders” included anxiety disorders, but did not specify if PTSD and trauma-related disorders were included under the umbrella of anxiety disorders. Because the review occurred while PTSD and trauma-related disorders were classified as anxiety disorders, the possibility exists that these disorders were included.

Evidence-Based Practices for the Treatment of PTSD

Current evidence-based practices for PTSD and trauma-related conditions are primarily cognitive-behavioral modalities. While evidence supporting specific cognitive-behavioral models for the treatment of trauma-related disorders has been established, these approaches are emerging practices that stand in need of substantial research efforts to confirm efficacy. In the Institute of Medicine (IOM, 2014) report titled, *Ongoing Efforts in the Treatment of Posttraumatic Stress Disorder: Final Assessment*, the co-authors determined, “It is important to continue to develop and evaluate new psychotherapy options because there is currently no evidence-based treatment that is effective for everyone who has PTSD and no treatment that is so

appealing, engaging, and pragmatically deliverable to patients that it breaks down all barriers to care” (p. 190). Though the IOM committee focuses on the military and veteran populations, their review of the treatment literature overlaps with civilian populations.

Several findings and recommendations relevant to the study of neurobiologically informed somatic treatments for PTSD were stated throughout the Committee on the Assessment of Ongoing Effects in the Treatment of Posttraumatic Stress Disorder, & Institute of Medicine, 2014 report. The inclusion of somatic approaches for the treatment of PTSD was identified as a “major foci of PTSD-related research” (p. 228). Particular interest was given to “the neurobiology of emotion and defensive responses to fear, anxiety, avoidance, and reward” (p. 182). This is the same neurobiological interest underscored in the study—of ways that psychodynamically informed clinicians decide to synthesize somatic awareness and somatic interventions in their treatment approaches with traumatized persons.

The Cochrane Collaborative (2013) review of psychological therapies for chronic posttraumatic stress disorders in adults identified two empirically supported treatment modalities: (a) trauma-focused cognitive behavioral therapy (TFCBT) and (b) eye movement desensitization and reprocessing (EMDR). The meta-analysis included 70 studies specifically analyzing reduction in the severity of PTSD sequelae (Andrew, Bisson, Cooper, Lewis, & Roberts, 2013). TFCBT and EMDR are the only two “advanced treatments” promoted by the *World Health Organization Assessment and Management of Conditions Specifically Related to Stress* (mhGAP Intervention Guide, WHO, 2013).

Trauma-Focused Cognitive Behavioral Therapy and Prolonged Exposure

Trauma-focused cognitive behavioral therapy for the treatment of PTSD and trauma-related disorders consists of variants of clinical technique based on cognitive oriented theories. The primary categories of technique are: 1) prolonged exposure, 2) stress inoculation training, 3)

cognitive therapy, and 4) cognitive processing therapy (Cohen, Friedman, Foa, & Keane, 2009). Emotional processing theory is central to TF-CBT and proposes that traumatic experience(s) can create a “fear network in memory” that can be corrected by activating the “pathological fear structure,” and providing replacement information that is incompatible with the existing information in the fear structure (Cahill, Follette, Resnick, & Rothbaum, 2009; p. 140). A subtype of TF-CBT, Prolonged Exposure (PE)/ Exposure Therapy (EX), is a form of TF-CBT not specifically identified in the Cochrane Collaboration meta-analysis.

Eye Movement Desensitization and Reprocessing (EMDR)

The inclusion of eye movement desensitization and reprocessing (EMDR) in this literature review serves multiple objectives towards lending neuroscientific, empirical support for the synthesis of somatic awareness interventions in the treatment of psychological trauma. While EMDR and the body-based somatic awareness interventions explored for this study have distinct differences, there are several theoretical commonalities. EMDR and body-based somatic awareness interventions share scientific theoretical underpinnings regarding interventions addressing physiological regulation and affect regulation (Drozd, Harper, & Rasolkhani-Kalhorn, 2009). Neuroscientific research focused on identifying neural-biological mechanisms engaged through EMDR bilateral brain stimulation interventions indicate, “beneficial changes in psychophysiological activity, as well as decreases in subjective disturbance and stress reactivity during EMDR treatment” (Harper, Drozd, & Rasolkhani-Kalhorn, 2009, p. 81). Additionally, Shapiro (2008) proposes that “somatic awareness” used as an aspect of EMDR, “may also be a procedural element particularly relevant to positive outcomes” (p. 320).

Assimilative integrative use of EMDR. The integrative use of EMDR with psychodynamic practice lends theoretical support for the use of somatic awareness and somatic

interventions with psychodynamically informed treatment of individuals who have been traumatized. Neurobiological research has become the common ground for understanding, in which neurobiological processes are altered by blending a physiological focus into psychological trauma treatment approaches. The Adaptive Information Processing (AIP) model (the guiding principles for implementing EMDR) shares a foundational psychodynamic perspective that an individual's past traumatic experiences have an impact on present life problems (Lalotitis & Shapiro, 2011). Relational psychodynamic psychotherapy contributes "a relational focus on the intersubjective process between patient and therapist, along with EMDR's emphasis on the implicit, nonverbal aspects of traumatic experience" that can be integrated with a psychodynamic approach (Ringel, 2014, p. 142; Dworkin, 2005).

Summary

Limited research is focused on trauma-specific psychodynamic treatment, including the ways psychodynamically informed clinicians use somatic awareness and somatic interventions in the treatment of individuals who have been traumatized, or trauma-specific body-based somatic treatment models. Although psychodynamic psychotherapy is an evidence-based practice with historical and contemporary clinical concepts that include somatic awareness and somatic interventions, no formal re-thinking of theoretical ideas in this regard have accompanied advanced neurobiological knowledge and contemporary practice experience. In addition, well-known somatic treatment models for trauma-related disorders have yet to be researched for efficacy and for synthesized use with psychodynamic practice. An adequate evidence base for TFCBT, PE, and EMDR continues to be developed. Research specifically on the use of psychodynamic psychotherapy for the treatment of PTSD and other trauma-related conditions is desperately needed. This study aims to contribute findings towards reducing this gap in the

literature related to the use by psychodynamically oriented clinicians of somatic awareness and somatic interventions for the treatment of individuals who have been traumatized.

CHAPTER III

Methodology

This mixed-methods study addresses a gap in the clinical research literature on the decision-making processes of psychodynamically informed clinicians who use somatic awareness and somatic interventions in their treatment approach with individuals who have been traumatized. The quantitative results and qualitative findings contribute to clinical social work practice and the broader field of traumatology knowledge in support of *assimilative integration* of somatic awareness and somatic interventions with a trauma-specific psychodynamically informed treatment approach. This chapter begins with a section revisiting the purpose of this study and the two primary research questions. Following this section is an overview of the philosophical stance informing the methodological choice for the study. The chapter continues with a description of the research design, the participant sample, the data and data collection, and the data analysis plan. Ethical issues including risks and benefits, informed consent, and confidentiality are addressed. Lastly, the feasibility of the study is considered.

Why Begin with Exploratory Research?

Exploratory research is the best way to better understand this treatment phenomenon of psychodynamically informed clinicians who are using somatic awareness and somatic interventions in their treatment approach with individuals who have been traumatized. Beginning with exploratory Internet-based research requires venturing into new territory that requires thoughtful and transparent methodological decisions to achieve the objectives of the

research (Baker et al., 2013). For example, a clearly defined inclusion criteria for participant recruitment is established by identifying and carefully articulating common features related to somatic awareness concepts and somatic interventions across these three models (SE, SP, and TRM).

From a practice-based evidence perspective anecdotal evidence that psychodynamically educated clinicians are adapting somatic awareness concepts and somatic interventions as part of their treatment of some patients with trauma-related sequelae has been established. To date, no randomized clinical trials, nor experimental or quasi-experimental research studies, have been conducted on SE, TRM, or SP. In addition, no formal research related to theoretically cohesive *assimilative integration* of somatic awareness and somatic interventions with psychodynamic practice exists. Although each of these body-based somatic models involves varying amounts of specialized training, the use of skills and techniques common to these methods are being used independent of affiliation with any specific model in psychodynamic approaches to the treatment of PTSD (Wöller, Leichsenring, Leweke, & Kruse; 2012). The *assimilative integration* of somatic awareness and somatic interventions from these models as an aspect of psychodynamic practice is the specific inquiry of this investigation.

Research Purpose and Question

The primary purpose of this exploratory research is to begin to examine the decision-making processes of psychodynamically informed clinicians who use somatic awareness and somatic interventions in their treatment approach with individuals who have been traumatized. As established in the literature review, the psychodynamic clinical use of somatic awareness has historical and contemporary relevance that warrants further investigation. Based on a preponderance of neurobiological evidence, many individuals who have endured traumatic

event(s) may not be able to experience a reduction or resolution of traumatic stress through traditional psychodynamic talk therapy alone (Kandel, 2006; 1996; Levine, 2010; Ogden, Minton, & Pain, 2006; Porges, 2011; Schore, A. N., 2012). Exploring the decision-making processes of why, when, and how psychodynamically informed clinicians are using somatic awareness and somatic interventions in a synthesized way may enhance our understanding of how neurobiology can inform rethinking of some trauma-specific psychodynamic concepts.

Research Questions

The research questions for this study are:

1) Are some psychodynamically informed clinicians utilizing somatic awareness and somatic interventions adapted from three somatic models (Somatic Experiencing, Trauma Resiliency Model, and Sensorimotor Psychotherapy) in their treatment with individuals who have been traumatized?

2) Why, when, and how are psychodynamically informed clinicians using somatic awareness and somatic interventions adapted from three similar somatic models (Somatic Experiencing, Trauma Resiliency Model, and Sensorimotor Psychotherapy) in their treatment with individuals who have been traumatized?

Philosophical Stance Underlying Methodological Choice

Epistemologically, no single way to confirm knowledge exists, and no one absolute truth can be discovered. My philosophical stance underlying the selection of a mixed-methods study (MMS) design for this issue is based in equal valuing of “objective and subjective knowledge” (Hanson, Creswell, Plano Clark, Petska, & Creswell, 2005, p. 226). While the two research questions are related, they generate distinct separate data sets for analysis and integration. The exploration of the use of somatic awareness and somatic interventions and the

clinical decision making process of why, when, and how clinicians assimilate these body-based concepts have generative implications to psychodynamic theory and practice. Individuals who develop trauma-related sequelae in response to overwhelming event(s) constitute a substantial vulnerable population. Clinicians who treat this population co-navigate complex relational and intersubjective experiences that cannot be captured in a positivistic worldview. The epistemological perspective of *critical realism* in relationship to mixed methods research is a worldview supportive of multiple forms of knowledge, complementary research paradigms, and the integration of mixed data analysis techniques used in mixed methods research (Christ, 2013, p. 112). Internet technology and the growing use of professional listservs to exchange ideas, seek clinical consultation, and engage in complex discourse opens up new research opportunities to capture multiple perspectives and heuristic experience.

Critical Realism

The worldview that most accurately reflects the epistemological stance for this research is *critical realism*. Christ (2013) describes *critical realism* as a theory of knowledge based on the idea that “there are levels of objective truths that can be discerned, but finding absolute truths about a social phenomenon is impossible” (p. 112). The process of choosing to study the phenomenon of psychodynamically informed clinicians’ adapting somatic awareness and somatic interventions in their treatment of individuals who have been traumatized reflects a worldview that values multiple subjective perspectives. Multiple objective truths that contribute to useful knowledge can be discovered through the exploration of the decision-making processes used by psychodynamic clinicians to utilize somatic awareness interventions. A mixed methods approach allows for multiple sources of data that can be used to determine basic concepts about this phenomenon using both subjective and objective data. One of the

goals of this research is to be able to “formulate conceptualizations” about the “meanings and representative realities” of the participants as a way to understand the decision-making processes of psychodynamically informed clinicians who use somatic awareness and somatic interventions in their treatment approach with individuals who have been traumatized (Christ,2013, p. 112). The concepts and representative realities drawn from this research project are intended to contribute to the field of traumatology and the understanding of the usefulness of body-based somatic awareness and somatic interventions.

Research Design

This study is a mixed-methods, concurrent monostrand (single phase) research design implemented by using a qualitatively informed survey instrument (Creswell, 2015; Teddlie & Tashakkori, 2006). This method of inquiry aims to explore the decision-making processes of psychodynamically oriented clinicians who use somatic awareness and somatic interventions in their treatment of individuals who have been traumatized. Anecdotal and practice-based evidence (PBE) has demonstrated the occurrence of the phenomenon of psychodynamic clinicians who synthesize somatic awareness and somatic interventions in their treatment approach with individuals suffering from trauma-related sequelae.

This mixed-methods study (MMS) consists of the development, implementation, and analysis of quantitative and qualitative data that have been collected using an Internet survey. The survey instrument was developed in part from qualitative interviews with clinicians and researchers that have an expertise on critical aspects of this study issue. An overview of the research study design is presented in Table 2. Mixed-methods research is relatively new in the social sciences, and there are diverse perspectives on what actually constitutes a MMS design. Tashakkori and Creswell (2007) established a broad definition of *mixed methods*

methodology “as research in which the investigator collects and analyzes data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study or a program of inquiry” (p. 4). While this MMS adheres to this stated definition, as exploratory research using a non-probability sample, the findings reflect insights as opposed to generalizable inferences.

Table 2

Research Study Design

<u>Research Questions</u>	<u>Hypotheses</u>	<u>Instrument/Measures</u>	<u>Statistical Tests</u>
1) Are some psychodynamically informed clinicians utilizing somatic awareness and somatic interventions adapted from three somatic models (Somatic Experiencing, Trauma Resiliency Model, and Sensorimotor Psychotherapy) in their treatment with individuals who have been traumatized?	This is exploratory research, and no hypotheses are tested.	Survey Instrument Developed from Qualitative Interviews and Narrative Sources to Collect Demographic Information & Survey Items Confirming the Use of Somatic Awareness and Somatic Interventions	a) Descriptive Statistics (Frequencies and Means) b) Histograms c) Cross Tabs d) Chi square Qualitative Analysis a) Content Theme Analysis (CTA) b) Integration
Why, when, and how are psychodynamically informed clinicians using somatic awareness and somatic interventions adapted from three similar somatic models (Somatic Experiencing, Trauma Resiliency Model, and	This is exploratory research, and no hypotheses are tested.	Survey Instrument Developed from Qualitative Interviews and Narrative Sources to Collect Somatic Awareness Use Items & Somatic Intervention Use Items	a) Descriptive Statistics (Frequencies and Means) b) Histograms c) Cross Tabs d) Chi square Qualitative Analysis a) Content Theme Analysis (CTA) b) Integration

Sensorimotor Psychotherapy) in their treatment with individuals who have been traumatized?			
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A mixed-methods study design requires consideration of three primary issues: *priority*, *implementation*, and *integration* (Creswell, 2015; Hanson, Creswell, Plano Clark, Petska, & Creswell, 2005). *Priority* refers to which method, either quantitative or qualitative, is given more emphasis in the study. *Implementation* refers to whether the quantitative and qualitative data collection and analysis come in sequence. *Integration* refers to the phase in the research process where the mixing or connecting of the two types of data occurs (Creswell, 2014; Hanson, Creswell, Plano Clark, Petska, & Creswell, 2005).

Priority is given to the quantitative methodology. The quantitative data will have greater emphasis on developing a deeper understanding of the decision-making process of psychodynamic clinicians' synthesized use of somatic awareness interventions in their treatment of individuals who have been traumatized. Qualitative data will be utilized for preliminary exploration of possible themes that relate to the quantitative findings and be integrated with the qualitative findings. *Implementation* will involve collecting quantitative and qualitative data in one phase using an on-line survey, and analysis will be in sequence beginning with the quantitative data analysis. *Integration* of quantitative and qualitative occurs in the data collection, the data analysis, and the discussion of findings.

Research Design Rationale

The supporting rationale for using a mixed-methods design suggests that neither quantitative nor qualitative methods are sufficient to capture the trends and details of the study

issue, in this case, the exploratory research of the decision-making processes of why, when, and how psychodynamic clinicians use somatic awareness and somatic interventions (Creswell, 2015). When used in combination, quantitative and qualitative methods complement each other and allow for more complete analysis (Creswell, 2015; Teddie & Tashakkori, 2006). Additional rationales for choosing a mixed methods design utilizing survey research for this proposed study are both general and specific. One general rationale underscored by Greene (2008) is that “qualitative methods could valuably contribute questions to surveys that are grounded in the subjective lives of those being studied, while maintaining the rigorous sampling methods and predetermined scales that make surveys useful” (p. 17). Another overarching rationale is that using either qualitative or quantitative research alone would be insufficient in answering the research questions. In other words, this research topic can be more completely understood by combining both quantitative and qualitative methods within a single study (Creswell & Plano Clark, 2011).

More specific rationales for selecting a mixed-methods study design include the ability to obtain two different perspectives, “one drawn from closed-ended response data (quantitative) and one drawn from open-ended personal data (qualitative)” (Creswell, 2015, p. 15). This proposed study will objectively measure the quantitative use of somatic awareness and somatic interventions, and will explore the subjective experience of clinicians’ reasons for using somatic techniques as part of his or her psychodynamic approach. Another specific rationale for selecting a mixed-methods design for this study is the need to have narrative data collected through qualitative preliminary interviews. Creswell (2015) categorizes the use of qualitative interviews to develop a survey instrument as a form of mixed methods research.

Sample

Sampling in mixed methods research is relatively new territory with many diverse views regarding probability and non-probability sampling strategies. While an increasing amount of literature is available regarding mixed methods research, “relatively little has been written on the topic of sampling” (Creswell, 2015; Onwuegbuzie & Collins, 2007, p. 282). The sample for this MMS is a non-probability sample. While findings from non-probability samples are not generalizable, the findings from this exploratory research project are intended to reveal important insights into the decision-making processes of psychodynamically informed clinicians who use somatic awareness and somatic interventions in their treatment approach with individuals who have been traumatized. Baker et al. (2013) emphasize that throughout history, highly relevant advances in science have been achieved without probability sampling. In the case of this research project, the target population is sought through “network sampling” using email addresses associated with diverse professional listserves that may create “natural randomization in the population” (Baker et al., 2013, p. 95, p. 92). Statistical formulas that explore and determine or dispute the degree of randomization in this study go beyond the scope of this research project.

Non-Probability Sampling Approach

The non-probability sampling method formula for this research project has been adapted from a probability sampling formula. The formula used can be found in Appendix F. While this formula is intended for probability sampling, the link of probability sampling with “network sampling” and “natural randomization”, two concepts that apply to this study population and to the innovative use of Internet survey research, establishes a rationale for

applying this sampling formula as part of the strategy for this research project (Baker et al., 2013).

Based on the sampling formula presented in Appendix F, the sample size need for a .05+/- .5% margin of error (MOE) is 306 participants. This MOE formula is based on the hypothesis that the universe sample population of psychodynamically oriented clinicians who are integrating somatic awareness and somatic interventions in the United States is approximately 1500. This is a hypothesized value as there are no known ways to accurately determine the universe value. The hypothesized universe population value of 1500 was derived from clinician-focused survey research and a brief consultation with a respected researcher who stated that “I know of no validated clinician survey templates” and am not sure what they would be, if they existed” (Norcross & Karpiak, 2012; Norcross, Pfund, & Prochaska, 2013; Norcross & Rogan, 2013; and John Norcross, email communication, 9/24/14). Again, because no studies exist that determine the total population of psychodynamically informed clinicians, this exploratory research utilizes the described adapted non-probability sample.

In addition, to minimize sampling error, the estimated distribution size needed is at least 1,000 to achieve an N= 150/200 for statistical strength (Appendix F). Dissertation surveys generally receive a response rate between 15%-20% and must anticipate addressing response bias (John Norcross, email correspondence, 9/24/14). In an effort to anticipate and correct for a low response rate, several strategies were utilized to increase response rate and to reach diverse clinical groups through listservs and snowball sampling. More detail about these strategies is addressed in the section on p. 66.

Sample Size and Representativeness

Two specific concerns, “representativeness and size of the samples obtained,” are “critical to the quality of survey research” (Greene, 2008, p. 9). Consideration for minimizing sampling error is reflected in the qualitative interviews that informed a clear definition of the inclusion criteria for the participants and ways to achieve a diverse large sample to minimize sampling bias. The preliminary qualitative interviews used to develop the Internet survey instrument are described in the section on data collection and survey instrument (Appendix D). The selection criteria established to address representativeness of the sample involved three levels of screening. First, the invitational introduction to the survey states that this researcher is seeking psychodynamically informed clinicians to participate in a study about their use of somatic treatment models with individuals who have been traumatized. The survey instrument (Appendix D) contains a plain language definition articulated in a section on terms describing the participant population as psychodynamically informed clinicians whose practice orientation is grounded in psychodynamic or psychoanalytic theories (drive theory, ego psychology, object relations, self-psychology, relational psychotherapy, intersubjective psychotherapy, and attachment theory).

Potential participants were screened in the beginning of the survey to determine if they consider their theoretical orientation to be psychodynamic, and an additional question determined the way participants attained their psychodynamic education and training. Preliminary qualitative interviews were conducted with five clinicians who have clinical expertise in the use of one or more of the three somatic methods (SE, SP, and TRM) and practice from a psychodynamically informed orientation to inform the development of the survey instrument. Clarifying the term—psychodynamic clinician—was deemed an important

survey parameter based on variations of responses among those interviewed. Further discussion of the preliminary interview process is on p. 64. Three descriptors for psychodynamic clinician are used in the survey: psychodynamically informed, psychoanalytic, and psychodynamic-integrative (psychodynamic theoretical orientation along with integrating other clinical techniques). The designation of psychodynamic-integrative was included based on research identifying an “emerging preference for theoretical synthesis (integration) as opposed to technical synthesis (eclecticism)” as a trend in future decades (Beitman, Goldfried, & Norcross, 1989, p.138). While no true estimate exists of the total population of psychodynamically informed clinicians, a few studies have tried to estimate the population base. Using survey research of American Psychological Association Division 39 members, Norcross and Rogan (2013) found that 27% of members who responded to the survey considered their theoretical orientation to be psychodynamic and 25% percent considered their orientation to be integrative.

Degree of Probability

The degree of probability of method sampling possible for this survey will be determined by the size of responses. One of the main reasons that surveys fail is sampling error which occurs due to “surveying only some, rather than all, members of the survey population” (Dillman, Smyth & Christian, 2009, p.19). Again, because no studies exist that determine the total population of psychodynamically informed clinicians, this exploratory research utilizes a non-probability sample. To minimize sampling error, the estimated distribution size needed is at least 1,000 to achieve an N= 150/200 for statistical strength (Appendix F). Dissertation surveys generally receive a response rate between 15%-20% and must anticipate addressing response bias (John Norcross, email correspondence, 9/24/14). In

an effort to anticipate and correct for a low response rate, several strategies were utilized to increase response rate and to reach diverse clinical groups through listserves and snowball sampling. More detail about these strategies is addressed in the section on p. 65.

Survey Population

The sampling strategy for this survey research involved careful consideration to determine the “survey population” and the “sample frame” that would most accurately represent the survey population (Dillman, Smyth, & Christian, 2009, p. 42). The *survey population* identified shared basic characteristics. Survey participants were all licensed clinicians who had received education in psychodynamic psychotherapy, and used somatic awareness and somatic interventions associated with Somatic Experiencing, Trauma Resiliency Model, and/or Sensorimotor Psychotherapy in their treatment of individuals who have been traumatized. A well-defined sample population allows for survey results to be generalized to the broader population. The sample frame involved the list of participants and professional associations that received the invitational requests to complete the survey (Appendix G).

To assure the survey populations were well represented, this survey was disseminated to a wide variety of psychodynamically educated clinicians, professional groups, professional listservs, and somatic training organizations (National Association of Social Work (NASW) Facebook page, United States Association for Body Psychotherapy (USABP), Somatic Experiencing Research Coalition (SERC), Division 39 American Psychological Association (APA), American Association for Psychoanalysis in Clinical Social Work (AAPCSW), Trauma Resource Institute (TRI) Facebook page, Somatic Experiencing on-line practitioner listing, Sensorimotor Psychotherapy on-line clinician listing, International Society for the Study of Trauma and Dissociation (ISSTD), New York State Society For Clinical Social Work

(NYSSCSW). In addition, a request asking participants to forward the email introducing the survey to colleagues that may be eligible to participate, but not on a listserv, was included in the initial survey email. Creating this comprehensive sample frame minimized the potential for sampling error by increasing the likelihood that the sample was truly representative of the survey population.

Sampling Strategy

Internet Survey Research

Utilizing the Internet to conduct social science study is a developing mode of research that has been analyzed in an effort to evolve and improve challenges to survey research (Cook, Heath, & Thompson, 2000; Fan & Yan, 2010; Hesse-Biber & Griffen, 2013). Fan and Yan (2010) reviewed the existing literature on web surveys, and discovered “the theoretical or practical relationship among the various factors in these [existing literature on web surveys] reviews is not immediately clear” (Fan & Yan, 2010, p.132). Consideration of the literature pertaining to the psychological process of web surveys will be applied to the four steps that constitute Internet survey research. Web survey development, web survey delivery, web survey completion, and web survey return, are the four steps identified by Fan & Yan (2010) creating the basic framework for web-based research. Lastly, Hesse-Biber and Griffin (2013) examined the use of “Internet-mediated technologies” (IMT) in mixed-methods research, underscoring the need for ongoing discourse related to ethics and to the effects of IMT on qualitative data collection and analysis (p. 43).

Theories Informing Survey Sampling Strategy

Leverage-saliency theory, social exchange theory, and Motivation Interviewing (MI) influenced fundamental aspects of how the survey instrument (Appendix B) was developed so

as to reduce return bias (Dillman, Smyth, & Christian, 2009). These theories indicate survey participants assign different degrees of importance/weight to reasons stated in the invitation to take a survey and that “over emphasis on a single appeal” can result in nonresponse error (Dillman, Smyth & Christian, 2009; Fan & Yan, 2010). Applying *leverage-saliency theory* in the development of the survey involved the consideration of common professional values as well as values related to the clinical relevance expressed by participants in preliminary qualitative interviews.

Social exchange theory is considered a basic theoretical framework to “increasing the likelihood of response” by demonstrating the benefits received in exchange for completing and returning the survey (Dillman, Smyth, & Christian, 2009, p.22). Social exchange issues for the participant population were:

- Participating in research involving shared professional interests
- Contributing to psychodynamic theory and practice knowledge base
- Collaborating in research that values practice-based evidence (PBE)
- Being recognized (validated) for clinical practice decisions to meet the needs of individuals who have been traumatized from a psychodynamic-somatic perspective
- Helping to validate the use of somatic approaches
- Contributing to the literature to support research that supports somatic approaches as an evidence-based practice

In addition, concepts adapted from Motivational Interviewing (MI) were coupled with social exchange theorists’ emphasis on motivation (Miller & Rollnick, 2002). Basic principles of MI were applied to the choice of language used in the invitation to participate in the survey, and in the introductory language in the survey instrument (Appendix E). The following

introductory sentence demonstrates the use of social exchange theory with MI: “Thank you for taking the time to join with other colleagues to contribute clinical knowledge and expertise related to the psychodynamically informed treatment of individuals who have been traumatized.” The email inviting participation highlights the fact that this is the first research survey exploring this professional clinical practice phenomenon (Appendix F). It provides a brief description of how results will be used to further the profession. It also appeals to clinicians’ “helping tendencies” and support group values (Dillman, Smyth & Christian, 2009, p. 23-24).

Reaching the Sample Population

The sample population, psychodynamically informed clinicians who use somatic awareness and somatic interventions in their treatment approach with individuals who have been traumatized, is accessible through Internet network sampling. Three main professional groups intersect within this study population: (a) psychodynamic clinicians who belong to organizations specific to psychodynamic or psychoanalytic practice, (b) clinicians who belong to somatic or body psychotherapy organizations, who may or may not be psychodynamically trained, and (c) clinicians who belong to general practice organizations (see p. 65 for full list of organizations). The invitation containing the embedded survey link was sent to the select list of clinical organizations, clinical journals, professional listservs, and somatically oriented research groups. The participant recruitment technique of snowball sampling or Internet crowd-surfing was also utilized to reach eligible clinicians who do not belong to organizations or listservs.

Ethics and Informed Consent

No ethical concerns or potential ethical violations have been identified in this proposed research plan. This Internet survey research was conducted after approval from Smith College School for Social Work Human Subjects Review board. All participants acknowledged informed consent with electronic signature functionality embedded in the survey software. The Internet survey provider confirmed that its data services are encrypted and meet the regulatory guidelines for human subject research. For this research, the risks to human subjects are greatly reduced because participants are clinicians—rather than patients. Anonymity was maintained in relation to all participants, and confidentiality maintained throughout the study. There were open-ended questions in the survey that addressed clinical practice; to assure confidentiality, the survey contained a statement requesting all narrative and case examples to be free of any identifying information.

Risks and Benefits

The participant population consisted of licensed mental health or behavioral health clinicians; no risks have been identified. Benefits of participating in this research may be the recognition of clinical work valued by clinicians, the opportunity to participate in research that values the participant's clinical decision-making, and participating in research that may lead to the development of a broader research base for neurobiologically informed psychodynamic psychotherapy.

Survey Instrument Development

This mixed-methods study will be the first study to investigate the phenomenon of psychodynamic clinicians' use of somatic awareness and somatic interventions in their treatment of individuals who have been traumatized. A survey instrument was developed to

conduct this research. This survey instrument was developed in part through analyzing qualitative data collected from interviews with clinicians who considered their clinical orientation to be psychodynamically informed and who have adapted one or more of the three somatic models (SE, TRM & SP) to their treatment with individuals who have been traumatized. Specific focus was placed on transparency in the development of this survey instrument. Baker et al. (2013) underscore the how essential transparency is to research design involving non-probability sampling methods. With this emphasis on transparency in mind, the following sections detail the process of developing the survey instrument and the elements of each question developed for the survey.

Preliminary Qualitative Interview Questions for Survey Development Purposes

The initial qualitative survey questions (Appendix D) were developed based on my own anecdotal experience of using somatic awareness and somatic interventions as part of psychodynamically informed practice, discussions with colleagues, and review of books and training manuals on the somatic models. The review of the somatic models included reports and papers that described the adaptation of SE in a variety of settings and populations. Five preliminary interviews were conducted with psychodynamically oriented clinicians not in the sample who had also completed training in one or more of the three somatically based treatment methods described in the literature review.

All of the participants interviewed in the preliminary round were clinicians who considered their clinical orientation to be psychodynamic and had been trained in one or more of the three somatic treatment models described in the literature review. Two of the five participants are the authors of the Trauma Resiliency Model (TRM), and are Somatic Experiencing Practitioners (SEP). The other three are trained in two of the three somatic

treatment models (SE and TRM). The use and description of preliminary interviews for survey development purposes were not required to have approval by a Human Subjects Review (HSR) board. The initial interviews were recorded and used to identify themes.

The key themes that emerged and influenced the survey instrument are presented with supporting excerpts from the qualitative interviews:

- Recognition of the importance of the mind-body connection: “I was very struck by the power of states. The combination of what happens in the mind and body.” “I was blown away by the biological concept of psychological trauma.”
- A way to work with people experiencing severe dysregulation: “Working with people prone to profoundly dysregulated states.” “A way to help clients build self-regulation skills.” “A part of phased trauma treatment, stabilizing the nervous system.”
- A general knowledge of neurobiology is helpful: “It’s helpful, in particular to understand that psychodynamic therapy relies on central cortical function, and somatic models address central nervous system dysregulation.” “I use basic neurobiology as psycho-education with clients. It’s a way to normalize what has happened to them after a traumatic event.”
- Can be a valuable aspect of psychodynamic practice: “Both approaches have the goal of the revision of the past being carried into the future, reprocessing the traumatic experience.” “Bringing attention to the somatic experience, sensations or gestures, can reveal an attempt to complete a defensive response, like self-protection.”

Once the survey instrument was developed, three of the five persons interviewed, reviewed and provided feedback that was used to further refine the survey instrument.

Additional Qualitative Data Informing the Survey Development

The development of the survey also incorporated aspects of the qualitative methodology and findings from Hays' (2014) qualitative research data collected using a "structured interview question schedule" (p.70). Although Hays' (2014) qualitative study only included four psychodynamic clinicians who also used Somatic Experiencing, her qualitative inquiry is germane to this investigation. Hays (2014) identified positive perceptions related to the clinical value of integrating Somatic Experiencing with psychodynamic practice. She explored her participants' perceptions of their patients' improvements in positive relational changes that "the release of symptoms in the body, paired with the healing of developmental trauma, allowed for his patient to engage in interpersonal relationships more effectively" (p. 43).

Also, several reports and papers describing the adaptation and implementation of SE were reviewed to inform the development of the survey instrument (Carleton, 2009; Heller & Heller, 2004; Heller & Whitehouse, 2008; Marriott & Houghton; Wheeler, 2008). Finally, my own clinical experiences of *assimilative integration* of somatic awareness and somatic interventions have provided a continuous iterative process to consider in the development of this survey instrument.

Survey Instrument

As detailed in the previous section, the survey instrument (Appendix E) development process involved collecting and analyzing narrative data from five qualitative interviews as well as reviewing training manuals, somatic model implementation reports, and the exploratory research articles presented in the literature review. In numerous informal conversations about somatic treatment models, these three models—SE, TRM, and SP—are frequently compared as

similar in content and ways to present the techniques used for somatic awareness and somatic interventions. The main body of the survey instrument consists of 12 multiple choice and Likert-scaled questions, three open-ended questions, and eight demographic questions.

Quantitative Questions

Question one. The first survey question was informed through the interview process: “Do you consider your clinical orientation to be primarily psychodynamic, psychodynamically informed, psychoanalytic, or integrative (psychodynamic theoretical orientation along with integrating other clinical techniques and skills)?” The interviews revealed that participants used a range of descriptors for psychodynamic clinicians, and that this clarification of the population characteristics is important for the validity of data analysis. The inclusion of “integrative” was also based on research identifying an “emerging preference for theoretical synthesis (integration) as opposed to technical synthesis (eclecticism)” as a trend in future decades (Beitman, Goldfried, & Norcross, 1989, p. 138).

Question two. Question two categorizes how clinicians received their education in psychodynamic theory and practice. By way of responding to this interview question, an understanding of the different ways that participants had received training in psychodynamic theory and practice becomes apparent.

Questions three, four, and five. These questions are specific to the somatic treatment models selected for this study. If a participant responds “no” to screening question three—“Have you studied or sought clinical training in any body-based somatic model/method?”—then the *skip logic* feature took the participant to the open-ended question: “Please describe your clinical orientation, and in what ways, if any, you use somatic awareness and somatic interventions in your own practice with individuals who have been traumatized?” Questions four and five categorized both the specific somatic model the participant was trained in, and

the frequency of specific somatic skills they used in their treatment with individuals who had been traumatized.

Questions six, seven, eight, and nine. These five questions related directly to the exploration of the research question: “Why, when, and how, are psychodynamically informed clinicians using somatic awareness and somatic interventions adapted from three similar somatic models (Somatic Experiencing, Trauma Resiliency Model, and Sensorimotor Psychotherapy) in their treatment with individuals who have been traumatized?” The specific response choices to these multiple choice or Likert-scale questions were derived from the qualitative interviews and training materials.

Question ten. The intent of asking this question—“In your clinical practice with individuals who have been traumatized, how relevant is it to you that your use of somatic awareness/interventions be theoretically grounded with your psychodynamic perspective?”—is to explore to what degree, if any, psychodynamically educated clinicians are thinking about the theoretical meaning of using somatic awareness and somatic interventions. This question is also meant to prompt and raise the participant’s awareness about the idea of theoretical connections between psychodynamic psychotherapy and body-based somatic techniques in preparation for the open-ended question about connecting somatic awareness and somatic interventions.

Demographic questions. The eight remaining questions are for the purpose of collecting demographic data. These will be used in the descriptive statistical analysis. Collecting this demographic data will reveal differences, if any, within the participant sample.

The following demographic characteristics are collected:

- Age
- Type and level of educational degree(s)
- Field of highest degree
- Licensure
- Type of practice setting
- Average of clients/patients per week
- Years in clinical practice
- Percentage of clients/patients with PTSD or trauma-related disorder(s),
Complex PTSD, or Early Relational Trauma

Qualitative Questions

Questions eleven, twelve, thirteen, and fourteen. These four questions are open-ended and generated narrative responses used to undertake a content theme analysis. In regard to online surveys, the degree of *saliency* of the topic (how important it is to survey participants) is correlated with response rates. The rationale for including open-ended questions is based on the projected high degree of *saliency* of the topic among the participants (Cook, Heath, & Thompson, 2000; Fan & Yan, 2010; Hesse-Biber & Griffen, 2013). Question fourteen is an open-ended question developed to collect narrative data from participants who answered “no” to having studied or sought clinical training in a somatic treatment approach.

Testing the Survey

Survey Quality Assurance

The purpose of testing the survey instrument was to test user interface and survey usability, to identify possible problems, and to discover technical glitches. Also, testing the

survey was a way to determine the accuracy of the estimated time to complete the survey, to familiarize myself with the way the data will be formatted for analysis, and to gain additional expert feedback regarding the clinical understandability of the instrument. The survey was sent to 14 psychodynamic clinicians who were aware of my research project and who would meet the participant criteria and/or had participated in the preliminary qualitative interviews conducted to inform the development of the survey instrument. Thirteen clinicians (93%) completed the test survey. The survey software allows the researcher to monitor the status of completed surveys and receives notification of completed surveys.

Incorporating Feedback from Preliminary Test Data

A review of the test data revealed several user interface technical and processing issues that led to changes to the instrument, the survey flow, and the process. Given the group of respondents solicited for test participation, the test data were biased, and will not be included in the actual survey data. One of the thirteen responders did not identify as psychodynamically oriented. This participant stated that although they had psychodynamic education, they considered their somatic approach to be a stand-alone method. The remaining twelve test participants who indicated a psychodynamic orientation indicated multiple ways they had received psychodynamic training. Overall, responses to the quantitative questions indicated good clarity in the wording, and frequent use of the option to select all that were applicable. One respondent indicated they didn't understand the question: "In what way(s), if any, do you connect your clinical use of somatic awareness/interventions to your psychodynamic theory and practice? If yes, how important is this connection?" This question was re-worded for clarity.

The test data also raised two issues that warranted consideration. The first issue relates to a participant including Mindfulness Based Stress Reduction (MBSR) as a somatic model they use in their treatment of individuals who have been traumatized. While MBSR has self-awareness skills related to SE, TRM, and SP, it is not a body-based treatment modality for individuals who have been traumatized. This study aims to understand the decision-making processes of psychodynamically oriented clinicians who use somatic awareness and somatic interventions in their treatment of individuals who have been traumatized. The use of MBSR skills along with somatic awareness and somatic interventions is a separate study issue worth exploring. One speculation about this response is the possibility that some clinicians may conflate clinical concepts that focus on self-awareness and self-observation with treatment modalities that focus on somatic awareness and somatic interventions. The second issue that was raised in the test responses that warrants discussion is the use of touch. One testing respondent who has advanced training in SE indicated that touch was a useful aspect of working somatically for some patients. They emphasized the necessity to determine that touch was appropriate and the ethical concerns that touch raises in the mental health profession.

Overall, some minor challenges occurred in mastering the edits feature to correct typos or refine wording of the questions. Further research on Internet survey services resulted in confirming that Formstack.com is an online survey service well-aligned with the needs of research project. This service allows for participants to embed informed consent to streamline the survey process. Technological ease of sending, receiving, and completing an online survey is critical to achieving the amount of responses needed for statistical strength.

Data Collection and Data Analysis

Data Collection

The preliminary phase of this study involved conducting informal qualitative interviews for the purpose of developing an Internet survey instrument. An Internet survey (Appendix B) was developed to gather quantitative and qualitative data pertinent to the two declared research questions. The primary phase of this study involved the collection of quantitative and qualitative data through the online survey instrument. The collected exploratory quantitative and qualitative research data provided a more comprehensive understanding of the responses, rather than collecting only one type of data. The quantitative data was analyzed first to establish a framework to utilize *integration* and *triangulation* to deepen the interpretation of the two types of data. A *conjunctive conception* of triangulation, “which consists of bringing different methods to bear on the same reach questions,” is the overarching conceptual framework for this data analysis (Howe, 2012, p. 90).

Mixed-Methods Data Analysis

A common data analysis strategy in mixed-methods research (MMR) is triangulation and integration. Triangulation of the two data types will be utilized to reduce the risk of biases and to broaden the understanding of the study issue (Maxwell, 2005). Both quantitative data and qualitative data will be used to answer the research questions. This analytical approach is a “conjunctive conception of mixed methods triangulation” and the approach is understood as “*between-methods triangulation*” (Howe, 2012, p. 90). Triangulation of the two data types, narrative and numeric, allows for the integration of “thematic and statistical data” and “combined strength of validity from qualitative strand and reliability from quantitative strand” (Tillman, Clemence & Stevens, 2009, p. 1026). The mixed-method data collected and analyzed for this exploratory research will lead to a more comprehensive understanding of the

phenomenon of psychodynamically informed clinicians' use of somatic awareness and somatic interventions in the treatment of individuals who have been traumatized. The discussion of the integration and triangulation of the quantitative and qualitative findings is presented in the discussion chapter V.

Quantitative Data Analysis

Quantitative data was analyzed using SPSS software. The basic level of analysis established whether or not psychodynamically oriented clinicians are synthesizing somatic awareness and somatic interventions in their treatment of individuals who have been traumatized. Descriptive statistics will be utilized to establish an objective numerical understanding of the participants and a descriptive understanding of participants' psychodynamic theory and practice perspectives based on their responses. In addition, statistically significant variables between the primary study cohort and the exclusion study cohort are analyzed.

Upon completion of the data collection stage of this study, the data were exported from Formstack.com into an Excel spreadsheet. The data came out of Formstack.com in alphanumeric values representing the selections of each respondent. Each cell had an alphanumeric value. The data were then sorted for quantitative and qualitative responses. The quantitative responses were moved into a separate Excel spreadsheet file. The first level of analysis was to separate out all of the respondents that had met the inclusion criteria of the study; then, the inclusion group was separated out from the respondents that did not meet the inclusion criteria determined by their answers to the quantitative question related to having studied or completed training in a body-based somatic model.

Several steps were taken to prepare the data for analysis. To begin, each of the answers were re-coded into the appropriate numeric value assigned to the response. For example, zero

being “no” with one being “yes.” Multiple-choice questions where the respondent could select more than one response were re-coded into a separate variable. A single question in the survey could have up to four responses; for the purpose of analysis, each response was re-coded as a separate and additional question. This re-coding activity allowed for an individual value for each response. Several hours were required to clean the data prior to uploading the data into SPSS statistical software.

Additional steps were taken to identify and correct coding errors. Once the data was uploaded, descriptive statistics and frequencies were run, and the data further cleaned to identify any possible data entry coding errors. Each item has been checked for all N=212 respondents. As an additional measure, 10% of the data was checked against the survey data that were re-coded in Formstack.com to qualify for a zero data entry error rate. Tables and graphs reflecting the results of the quantitative analysis are presented in Chapter IV.

Qualitative Data Analysis

The qualitative data collected by this survey was captured through open-ended questions, and response boxes with out a size limit. The purpose of collecting qualitative data provided research participants an opportunity to share their subjective perspectives and heuristic experiences related to the two research questions. The open-ended questions provide an opportunity for research participants to share more details than their responses to the closed questions can capture, to provide a “safety net” to catch important or clarifying issues that the quantitative questions cannot capture, and to invite research participants more deeply into the exploration of the study issue (O’Cathain & Thomas, 2004). Using content theme analysis, the responses to the open survey questions were coded and categorized by themes. As anticipated with qualitative online survey research, some themes were reflected in single words or phrases (Creswell, 2015).

The Coding Process

Preparing the qualitative data for analysis involved an in-depth iterative process required for completing a content theme analysis. The separated qualitative data were stored in individual Excel file cells. Sixty-seven percent or N=107 of the N=152 respondents in the inclusion group completed the open-ended questions. Length of response varied from one or two sentences to several paragraphs. Responses to three open-ended questions specific to respondents who met the inclusion criteria and answered the questions constituted the qualitative data used for the content theme analysis. Potential limitations related to the percentage of respondents choosing to answer the open questions are addressed in the discussion of findings in Chapter V.

Several steps were taken to prepare the data for thematic coding. Responses to each question were separated and color-coded into single units of analysis. A unit of analysis was defined as a single concept or idea. For example, a single sentence could contain one to four single concepts. Once the units of analysis were identified, each unit was transcribed onto an index card. Careful attention was paid to labeling the index cards to assure that all units of analysis (N=879) were organized by question. For purposes of reliability and reducing researcher bias, three colleagues participated in the thematic coding process. The purpose of this step was to bring inter-rater reliability to the coding process whereby the coders communicated with each other to determine emerging themes. Discussion of the rationale for utilizing coders and possible additional bias that this step may have introduced can be found in Chapter V.

I then added several additional iterations of further coding for sub-themes and consistency of themes. The content themes of each question were coded for unique and similar characteristics. Then 10 units of analysis were selected as examples that reflect both common

sub-themes and outlier units of analysis. An important objective of the qualitative analysis is aligning with the epistemological perspectives of *critical realism* to assure the acknowledgment of multiple truths and subjectivities. Every effort was made to include a balance of units of analysis that did not privilege any one participant's response over another's. Findings of the content theme analysis are presented in Chapter IV.

Feasibility

Implementing this research proved to be very feasible. Use of the Internet allows for casting a wider net to the participant population. One of the primary concerns related to the feasibility of this study was the potential for low response rates associated with web-based surveys (Fan & Yan, 2010). I have taken this possibility into consideration, and made efforts to address the major errors that cause web surveys to have high nonresponse rates. In addition, I have made every effort to address why survey research fails, categorized by Dillman, Smyth & Christian (2009) as “coverage error, sampling error, nonresponse error, and measurement error” (p. 19).

The study population was more willing to participate in this research because it offered recognition for their clinical practice. In addition, it offered an opportunity to be on the frontlines of developing theory and practice regarding the influence of neurobiological knowledge on psychotherapy. The research instrument was developed, then tested. This testing process allowed for resolving technological problems and for further refinement through feedback from the 10 participants in the testing group.

Access to Internet survey technology adds to the feasibility of this dissertation project. Formstack.com is one of many software-as-a-service (SaaS) products that offer online professional survey building technology and data collection. Formstack.com was selected

because of the electronic signature capability for participant use in signing off on the informed consent and research level analytics. For the sorting phase of the qualitative data, three participants who completed the research survey assisted in sorting the units of analysis into primary themes.

Summary

This dissertation project aimed to explore the decision-making processes of psychodynamically informed clinicians who use somatic awareness and somatic interventions in their treatment approach with individuals who have been traumatized. Although there is a paucity of research on this study issue, a preponderance of anecdotal, theoretical, and neuroscientific evidence supports the potential value of the assimilative use of somatic awareness and somatic interventions in the treatment of trauma-related conditions. This specific mixed-methods methodology has been developed to explore this phenomenon and to contribute to the knowledge base to better understand the emerging assimilative integration and theoretical integration of this evolving clinical practice.

CHAPTER IV

Results

The results of the quantitative and qualitative data are presented in this chapter. We begin with revisiting the purpose and aims of this research, and restating the research questions that have guided this mixed-methods study (MMS). The quantitative results are given *priority* and will be presented first, then followed with the results of the qualitative thematic analysis. Included in this chapter is a discussion of researcher bias and reliability measures regarding the thematic analysis iterative process. In preparation for the discussion of the results, major findings are summarized at the end of this chapter.

Revisiting the Purpose of this Research

The primary purposes of this research are to address gaps in the literature related to the use of somatic concepts in psychodynamic practice, to substantiate the use of somatic awareness and somatic interventions adapted from biologically based models developed over the last thirty years specifically to reduce trauma-related sequelae (SE, SP, TRM, and other models adapted from or similar to these models), to begin to situate somatic approaches on the treatment continuum as a promising practice in the field of traumatology, and to explore the *assimilative integration* of these approaches to advance psychodynamic theory and practice concepts alongside contemporary neuroscience. An additional important purpose of this study is to integrate and equally value practice-based evidence and evidence-based practice paradigmatic perspective through mixed methods research methodology. Essentially, I want to invite clinician researchers to embrace a both/and point of view, instead of the traditional

either/or epistemological stance.

Research Questions

Two research questions guided this investigation and created parameters for exploring this clinical treatment phenomena occurring among the participant population. Note that question one does not ask to what extent psychodynamically informed clinicians are using somatic concepts because no empirical literature has established that this clinical phenomenon is occurring.

1) Are some psychodynamically informed clinicians utilizing somatic awareness and somatic interventions adapted from three somatic models (Somatic Experiencing, Trauma Resiliency Model, and Sensorimotor Psychotherapy) in their treatment with individuals who have been traumatized?

2) Why, when, and how are psychodynamically informed clinicians using somatic awareness and somatic interventions adapted from three similar somatic models (Somatic Experiencing, Trauma Resiliency Model, and Sensorimotor Psychotherapy) in their treatment with individuals who have been traumatized?

These findings are based on data collected from 212 individuals meeting the initial survey threshold for study inclusion. The results encompass descriptive statistics, clinical practice variables, and the qualitative findings of a content theme analysis to three open survey questions' responses. In this chapter, key findings of quantitative and qualitative data are detailed. This chapter contains a restatement of the research questions, an overview of the participant sample, the quantitative results, and the qualitative results. In Chapter V, summary findings and discussions of both quantitative and qualitative findings will be explored.

Quantitative Results

Survey Sample Recruitment

The online sampling methods undertaken during this study allowed for a distribution of the survey to 817 individuals captured by Formstack.com, the online survey software used in this study. Because no clear parameters exist that define the “universe” of psychodynamically oriented clinicians, the sample population sought for this exploratory research established the phenomenon of psychodynamically informed clinicians who use somatic awareness and somatic interventions in their treatment approach with individuals who have been traumatized. The sampling methodology used for this MMS involved is intended for probability sampling and linked a probability sampling formula based on the concept of “network sampling” and “natural randomization” (Baker et al., 2013; Onwuegbuzie & Collins, 2007). By accessing diverse listservs, requesting “network sampling”, and using Motivational Interviewing concepts to engage participants, I achieved a robust sample population.

Survey Sample Population

Of 817 unique responses from this survey, 32.8% (N=268) resulted in actual survey response conversions because they met all initial criteria to be included in the sample. Formstack.com survey functionality uses the term “unique responses” to capture data on the number of potential respondents who choose to follow a link to the survey. One explanation for the 549 individuals who did not convert to the survey sample population is that they were practicing a somatic body-based model, but not psychodynamically oriented. In addition, more specific questions were included within the survey to increase the reliability of a non-probability sample and for the purpose of establishing a starting point to understand how clinicians are assimilating somatic awareness and somatic interventions within their psychodynamic approach.

Criteria (survey questions) used to narrow the study sample are as follows:

Criterion 1. Individuals converting and responding to the survey but not meeting initial survey threshold criteria for participation inclusion (N=268)

Criterion 2. Individuals meeting Criteria 1 and answering “Yes” to the question: “Do you consider your clinical orientation to be primarily psychodynamic, psychodynamically informed (including attachment theory), psychoanalytic, or integrative (psychodynamic or psychoanalytic theoretical orientation along with integrating other clinical techniques and skills)?” (N=212)

Criterion 3. Individuals meeting criteria 1 and 2 and answering yes to the following question: “Have you studied or sought clinic training in any in any body-based somatic model/method?” (N=156)

Of 268 respondents who took the survey, 212 respondents were identified according to their clinical orientations. Forty-eight percent (156 respondents) also noted that they studied or sought clinical training in one or more of the body-based somatic models/methods. For purposes of this research project, the sample of 212 respondents is defined as, “Total Study Cohort.” Within this sample, a sub-sample of 156 respondents meeting all study inclusion criteria are defined as, “Primary Study Cohort.” The sub-cohort of 56 respondents meeting inclusion Criterion 1 and Criterion 2—but not Criterion 3 for training in body-based somatic models/methods—will be defined as, “Excluded Study Cohort.” The Primary Study Cohort (N=156) is the main focus of demographic, qualitative, and quantitative data findings presented in this study. As noted in Appendix F, the Primary Study Cohort sample size of 156 respondents provides the statistical strength necessary to minimize sampling bias.

Primary Study Cohort Validation

In order to validate survey respondents who noted their clinical orientations as psychodynamic and/or psychoanalytically informed, two survey questions were asked. The first question asked respondents to identify how they received their psychodynamic education and clinical training. Response selections were not mutually exclusive, therefore allowing respondents to select all applicable education and training methods.

The majority of respondents (139) or 66% reported receiving their psychodynamic education and training in graduate school. Fifty-seven percent (122) reported receiving education and clinical training via psychodynamic clinical supervision, clinical internship, residency and/or clinical training. Attending post-graduate psychodynamic clinical supervision and clinical training was reported by 47% (100); 44% of respondents (94) reported attending a psychodynamic institute or certification program.

Descriptive Findings

Demographic data were collected and reported on 212 Total Study Cohort respondents, with a primary focus on the sub-cohort of respondents meeting all study inclusion criteria. Table 3 provides an overview of the demographic finds for the two Study Cohorts (Primary and Excluded) and a brief notation of their areas of differences.

Table 3. *Primary Study Cohort and Excluded Study Cohort Demographics*

	Primary Cohort (N=156)		Exclusion Cohort (N=56)	
	Frequency	Percent	Frequency	Percent
Age				
25-35	7	5%	6	11%
36-45	18	12%	6	11%
46-55	26	17%	14	25%
56-65	69	44%	17	30%
66+	35	22%	13	23%
Highest Degree**				
Masters	102	65%	20	36%
Doctorate	51	33%	26	64%
MD	3	2%	--	--
Field of Study*				
Clin.Soc.Work	64	41%	15	27%
Clin.Psych.	45	29%	31	55%
Clin. Educ.	2	1%	1	2%
Counseling	35	22%	5	9%
Psychiatry	7	5%	2	4%
Other	3	2%	2	4%
Clinical Licensure				
Yes	151	97%	51	91%
No	5	3%	5	9%
Practice Setting				
Private Solo	79	51%	37	66%
Private Multi	20	13%	4	7%
Outpatient	19	12%	9	16%
Hospital	6	4%	4	7%
Physical Health	4	3%	1	2%
University	11	7%	---	---
Other	17	11%	1	2%
Average Clients per Week**				
1-5 clients	5	3%	11	20%
6-10 clients	55	35%	13	23%
11-15 clients	3	2%	--	--
16-20 clients	2	1%	--	--
20-25 clients	62	40%	20	36%
25+	29	19%	12	21%
Years in Practice				
1-5 years	9	6%	6	11%
6-10 years	24	15%	9	16%
11-15 years	20	13%	3	5%
16-20 years	23	15%	7	13%
21-25 years	18	12%	6	11%
25+	62	40%	25	45%

Percent Clients w/PTSD**				
0-10%	6	3%	10	18%
11-25%	14	9%	13	23%
26-50%	31	20%	11	20%
51-75%	42	27%	11	20%
76-90%	45	29%	6	11%
91+	18	12%	5	9%

*Chi Square Asymptotic Value (2 Tailed): (p<.05)

** Chi Square Asymptotic Value (2 Tailed): (p<.01)

Primary Study Cohort and Excluded Study Cohort

Demographic findings revealed both similarities and differences between the two study cohorts. Chi square analyses revealed no significant differences between the age of the cohorts ($\chi^2=5.858$, $df=2$, $p<.210$), with both groups largely represented by respondents between ages 55-64. No significant differences were noted between groups relative to setting in which the clinician's worked ($\chi^2=12.473$, $df=6$, $p<.052$), with most clinicians in both groups working in solo private practice. Both groups were comprised of licensed versus non-licensed clinicians ($\chi^2=4.432$, $df=2$, $p<.109$) with the majority of clinician's in both groups reported being in private practice 25 or years ($\chi^2=3.965$, $df=5$, $p<.555$).

Major differences. The major differences in demographics between the two groups were noted in the areas of highest degree earned, field of study, and percentage of clients with PTSD. The study cohort was comprised of more master's level clinicians versus the excluded cohort, which had a higher majority of PhD level clinicians ($\chi^2=17.403$, $df=2$, $p<.000$). The primary study cohort also included a higher rate of clinical social workers, while the excluded cohort was represented by more clinical psychologists ($\chi^2=14.936$, $df=6$, $p<.011$). The most notable difference between the two cohorts was related to the percentage of clients with PTSD. Approximately 65% (101/156) of respondents from the Primary Study Cohort reported that 51% or more of their clients have PTSD, while only 40% (N=21/56) of the Exclusion Study Cohort reported that 51% or more of their clients have PTSD. Chi square analyses revealed that this difference between the cohorts was statistically significant ($\chi^2=24.044$, $df=5$, $p<.000$).

I hypothesized that the difference between the two groups relative to the number of clients per week was likely more related to practice setting type, assuming that clinicians in private practice settings were likely to work with fewer clients per week. To test this

hypothesis, I first examined the correlation between the two variables. The Pearson bivariate correlation coefficient analyses of the total study sample (n=212) revealed a statistically significant correlation between type of practice setting and number of clients per week (.181, $p < .008$) suggesting that clinician's in non-private practice settings tended to work with more clients per week.

The same significance did not hold true when examining within sub-cohort correlations. In both the study cohort and the exclusion cohort, a non-significant negative correlation was found between type of clinical setting and number of clients per week suggesting that clinicians in private practice tended to work with more clients than clinicians in non-private practice setting (Study cohort: -.079, $p < .345$; Exclusion cohort: -.248, $p < .065$). As previously noted, chi-square analyses revealed significant differences between the two cohorts in number of clients per week (18.755, $df=5$, $p < .002$) but did not reveal the actual within group differences.

These findings preliminarily suggest that significant demographic differences do exist between psychodynamically identified/oriented clinicians who are trained in a somatic model and who use body-based methods in their clinical practice. While the statistically significant differences in the areas of highest professional degrees obtained and the fields of study of respondents might be more of an artifact of my degree (Clinical Social Work) and of similar groups targeted for survey completion, demographic findings of percentage differences of clinician caseloads with PTSD is a major finding that warrants discussion.

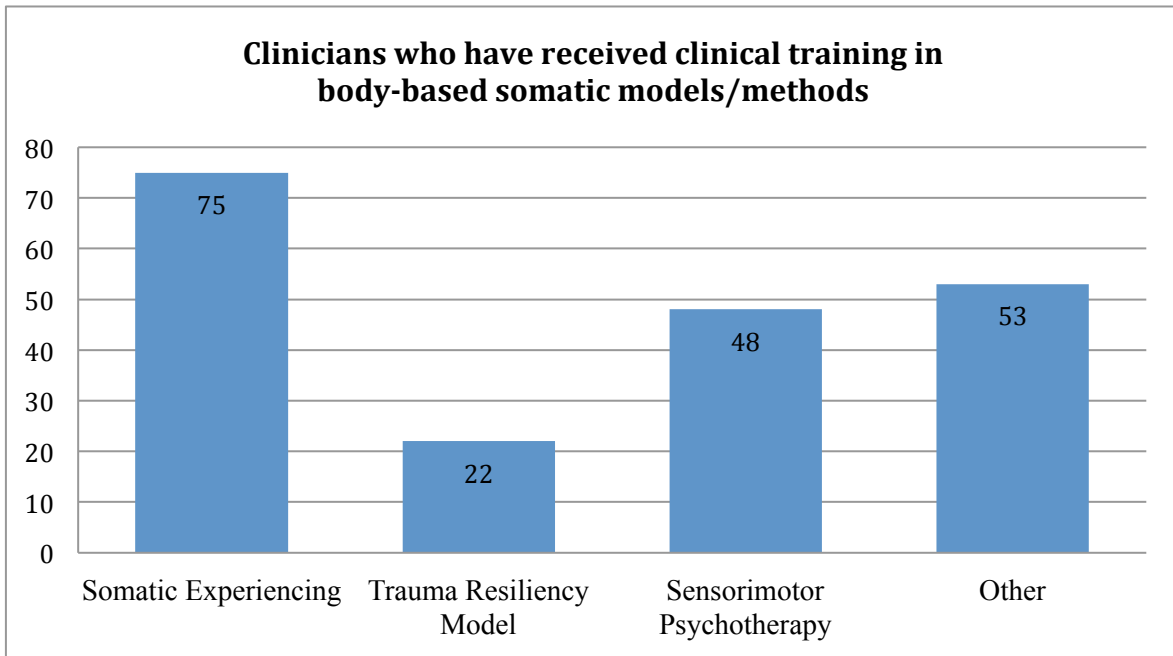
Somatic Methods Used by Psychodynamic Clinicians

Research Question 1 addresses whether psychodynamically informed clinicians utilize body-based interventions in their treatment with individuals who have been traumatized. To

date, these findings have yet to be established in the clinical literature base. Therefore, this researcher desired to first empirically validate the integration of psychodynamic psychotherapy and somatic awareness and interventions and or methods by clinicians. My survey results were significant in identifying 74% (N=156/212) of the Total Study Cohort as being trained in at least one body-based somatic method. Respondents were also asked to further identify specific body-based training in three relevant somatic methods: Somatic Experiencing, Trauma Resiliency, and Sensorimotor Psychotherapy. Respondents could identify training in one or more methods. Somatic experiencing (SE) was the most popular method of body-based intervention in which respondents were trained, with 48% (75) indicating they had received this clinical training. Thirty-one percent (48) of respondents reported receiving clinical training in Sensorimotor Psychotherapy, with 14.1% (22) in Trauma Resiliency Model. Thirty-four percent (53) listed receiving “Other” training. Figure 1 presents body-based training methods of the 156 Primary Study Cohort respondents.

Figure 1

Respondent Training in Body-Based Methods



Further Data Findings Establishing Use of Body-Based Methods

Research Question 2 of this dissertation sought to further understand why, when, and how psychodynamically informed clinicians use somatic awareness and somatic interventions in their treatment of individuals who have been traumatized. The first question asked of respondents, relative to the second research question, was used to establish why respondents chose to learn a body-based somatic awareness approach to utilize in their treatment of traumatized individuals. Ninety-eight percent (154) of all 156 individuals in the Primary Study Cohort responded as to why they chose to learn a body-based somatic awareness approach. The multiple-choice question was not mutually exclusive, allowing respondents to select more than one response. Data are presented in Table 4.

Table 4

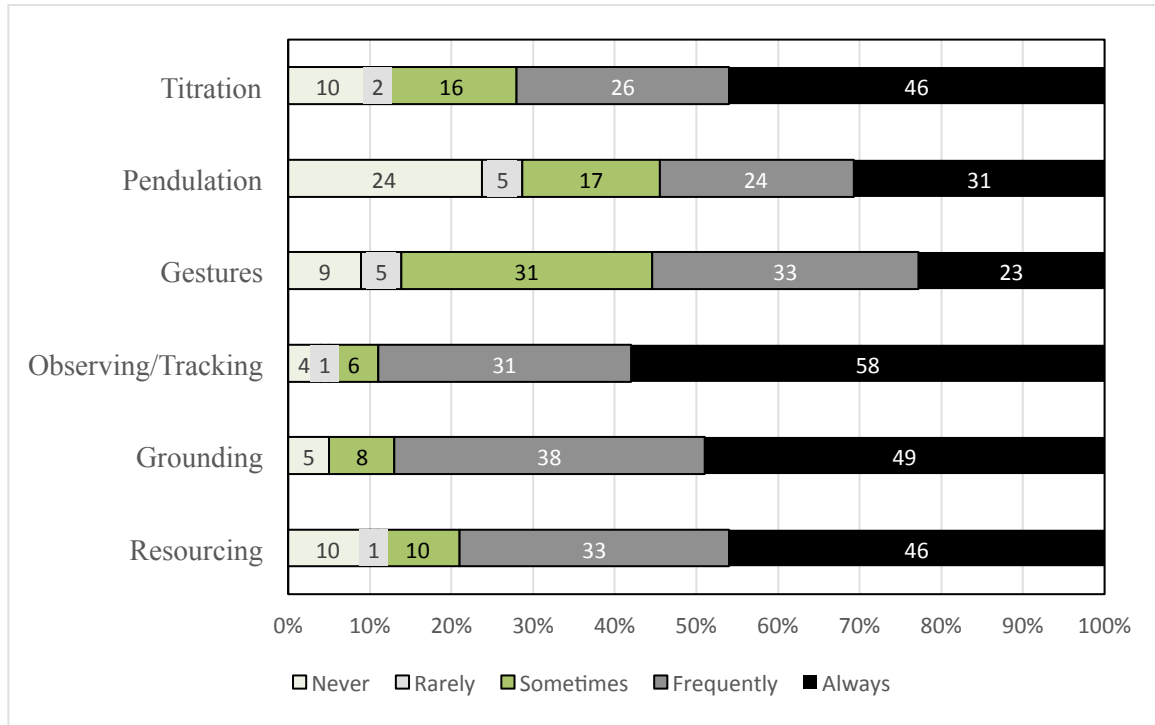
Reasons for Training in a Body-Based Method

<u>Reasons for Responses</u>	<u>Frequency</u>	<u>Percent</u>
1. Recognizing a need to include somatic body-based perspective in treatment of traumatized individuals	120	77%
2. To address limitations with a strictly talk therapy psychodynamic approach	117	75%
3. To offer patients/clients self-regulation or self-control skills	115	74%
4. Due to professional or personal experience with a somatic body-based perspective to healing trauma.	95	61%
5. Other	15	10%

Respondents were asked to further identify the actual type(s) of body-based skills that they use in the treatment of individuals who have been traumatized. Six body-based skills were identified: Resourcing, Grounding, Observing/Tracking, Use of Gestures, Pendulation, and Titration. Respondents were asked to rate their use of each skill using a five-point Likert scale, with 1 equaling “Never” and 5 equaling “Always.” Ninety-eight percent (153) of 156 respondents completed the question. Figure 2 displays multiple responses and percentages that participants utilized in their somatic intervention techniques.

Figure 2

Type of Somatic Intervention Techniques Employed by Survey Respondents



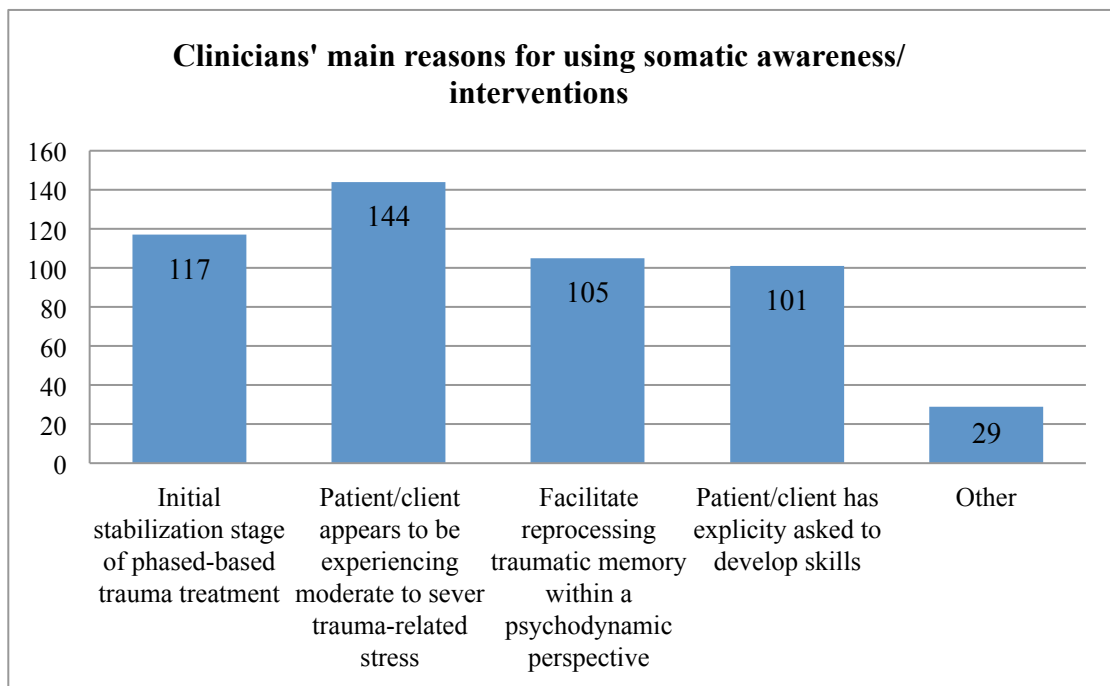
The data revealed that respondents were most likely to use Observing/Tracking, with 58% (90) respondents indicating “always” using it in their work with individuals who have been traumatized. Grounding was also a skill frequently used by 49% (75) of respondents who reported “always” using it in their treatment approach. The somatic intervention of Resourcing was identified as used often; and 46% (72%) of respondents indicated that they always use Resourcing with their clients who are being treated for trauma-related conditions.

Next, respondents were asked to indicate their main reasons for using concepts from somatic body-based models in their treatment of individuals who have been traumatized. When asked about main reasons respondents used somatic awareness and/or somatic interventions, 95% (148) reported it was because their clients appeared to be experiencing

moderate to severe trauma-related stress (e.g., affect dysregulation, dissociation, anxiety, etc.). In addition, 77% (117) of those same responders also said they used somatic interventions as part of the “initial stabilization stage of phased-based trauma treatment of a patient/client.” Sixty-nine percent (or 105) noted they used somatic awareness and somatic interventions to facilitate reprocessing traumatic memory within a psychodynamic perspective; 66% (101) reported they used the techniques because their patient/client explicitly asked for help to develop skills to reduce physiological and psychological trauma-related distress. Figure 3 shows the most frequently selected reasons for using somatic awareness and somatic interventions.

Figure 3

Main Reasons for Using Somatic Awareness/Interventions

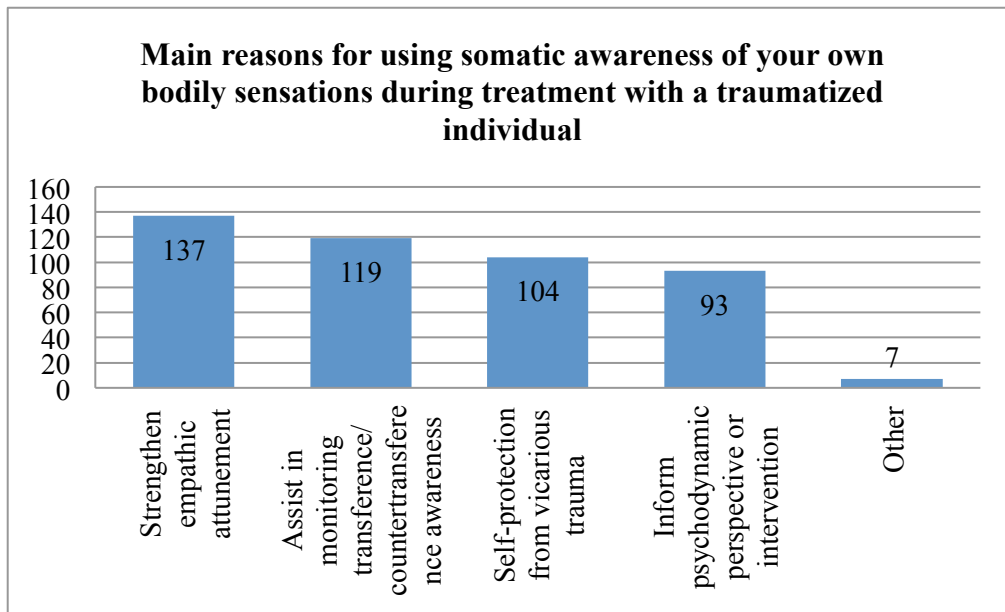


Respondents were also asked to report on their main reasons for using a body-based treatment as it related to their own sensations during treatment sessions. Responses were also not mutually exclusive; 152 of 156 respondents completed the question.

The most frequent response stated by 131 respondents (86%) was to strengthen the clinician’s own empathic attunement (e.g., awareness of one’s own physiological distress informing distress the patient/client may be experiencing with the client). Seventy-eight percent (119) of respondents noted that they wanted to monitor transference/countertransference awareness (projection, projective identification, etc.). Another reason frequently endorsed by 68% (104) of respondents was for self-protection from vicarious trauma (e.g., staying grounded through body-awareness of one’s own sensations in an effort to reduce the impact of hearing disturbing and or distressing description of traumatic event(s)). Figure 4 presents these findings.

Figure 4

Use of Somatic Awareness with Clinician’s Own Bodily Sensations

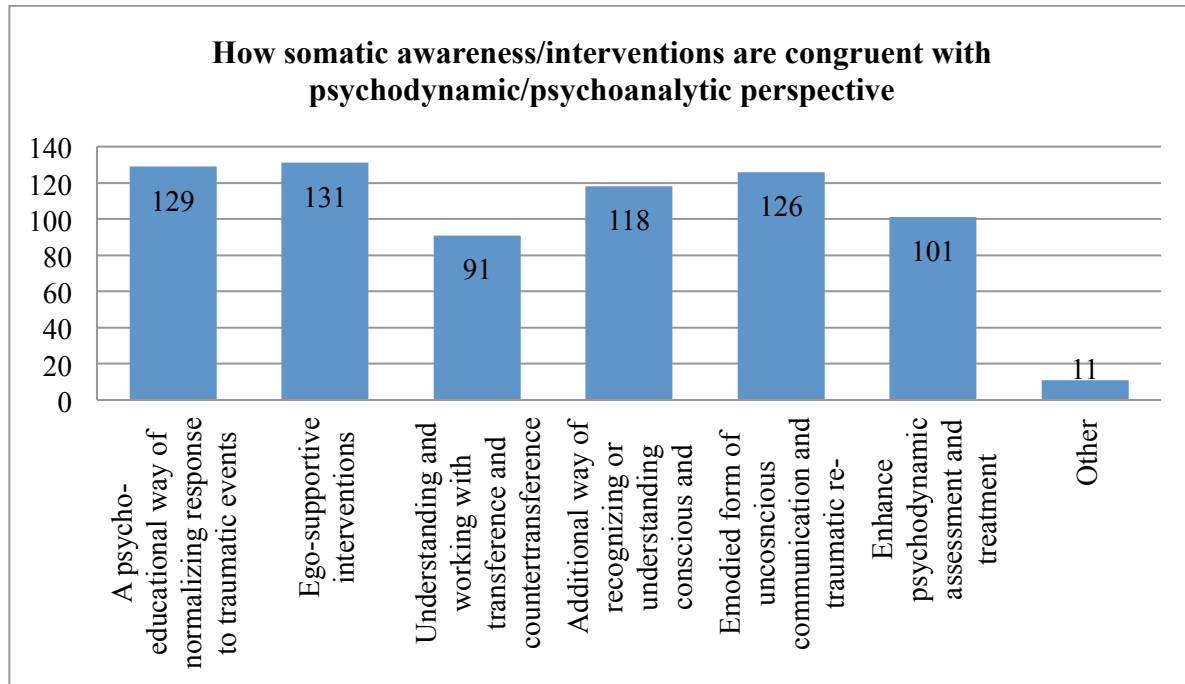


All 156 respondents in the Primary Study Cohort indicated that they felt the use of somatic awareness/interventions is congruent with their own psychodynamic/psychoanalytic orientations. Clinicians were asked to select all of the ways that they believed the use of

somatic awareness/interventions were congruent with their psychodynamic/psychoanalytic perspective. Figure 5 displays these findings.

Figure 5

Clinician Congruence between Somatic Awareness and Psychodynamic Perspective



Most respondents noted four or more ways in which they felt somatic awareness concepts were congruent with their psychodynamic perspectives. The most frequent ways respondents indicated theoretical congruence noted by 131 respondents (84%) was that supporting somatic awareness and helping individuals who have been traumatized develop somatic intervention skills was consistent with an ego-supportive psychodynamic focus. Respondents (129/156, or 83%) also reported that they felt somatic awareness techniques provided a psycho-educational way of normalizing common psychological and physiological responses to traumatic event(s). Eighty-one percent (126) noted they considered somatic awareness phenomena “as an embodied form of unconscious communication and traumatic re-

enactment.” When respondents were asked to rate the relevance of somatic awareness and somatic interventions being theoretically grounded with their psychodynamic perspective, 70% (109) responded it was extremely relevant, 21% (33) noted it was somewhat relevant, and 9% (14) responded that it was somewhat to extremely irrelevant.

Qualitative Results

Thematic Analysis

Qualitative data analyzed for this exploratory study have been extracted using a *content theme analysis methodology* from responses to open survey questions generated by online survey software, Formstack.com. Three open-ended questions were asked to provide subjective views on the study issue and to deepen the exploration of this issue. A fourth open-ended question was offered to participants who skipped to the end of the survey (because they did not meet participant criteria) to briefly describe their clinical orientations and use of neurobiologically informed interventions.

To prepare the data for thematic analysis, I parsed the narrative data into single *units of analysis* for initial coding of themes. After exporting the narrative responses, respondents' answers were color-coded into single units of analysis. The single units of datum were selected based on the expression of a single concept. A list of emerging themes was compiled during this step of the thematic analysis. Per open-ended question, each unit of analysis was transcribed onto a single index card. Intercoder reliability was used to increase reliability of the qualitative analysis. Three colleagues participated in the initial sorting of the units of analysis into *thematic categories*. Each of the three colleagues are master level clinical social workers trained in one or more of the three somatic models, and are survey respondents. The clinicians' familiarity with the unique range of terminology and specific neurobiological concepts associated with somatic body-based approaches and psychodynamic practice,

decreased bias by more accurately distinguishing themes. This step also allowed the clinicians to engage in discussion with each other about *units of analysis* that were more ambiguous in content or could be considered appropriate for more than one thematic category. Once the units of analysis were initially sorted, I conducted a second iterative process of sorting the units of analysis. This step resulted in recoding some of the *units of analysis* and refining some of the thematic categories. A third iterative process occurred when the thematic categories were placed into tables and representative samples were selected as samples for the results.

Results of Content Theme Analysis

The qualitative results of content theme analyses were derived from participant responses to open-ended questions embedded in the online Formstack.com survey. Not all 159 participants chose to answer the open-ended questions. While this lesser percentage of respondents completing the open-ended questions introduces a question of sampling bias within the survey population, an extensive amount of qualitative data was collected and analyzed. Of 113 (74.3%) participants who did take the time to answer the open questions, their answers varied in length from one sentence to several multi-sentence paragraph(s).

Somatic Use and Psychodynamic Theory and Practice

The open research question, “In what ways does your use of somatic awareness/interventions align with your understanding of psychodynamic theory and practice?” invited participants to elaborate on their thoughts and experiences. Seven content themes were identified: 1) psychodynamic concepts; 2) recognizing unconscious material; 3) mind-body traumatic memory; 4) somatic awareness; 5) integrated concepts; 6) establishing safety; and 7) affect regulation. Each content theme will be supported with units of analysis to discuss their impact. A total of 337 units of analysis were coded and sorted as shown in

Table 5.

Table 5

Somatic Use and Psychodynamic Theory and Practice

<u>Content Theme</u>	<u>Units of Analysis</u>
Psychodynamic concepts	86
Unconscious material	33
Mind-body traumatic memory	47
Somatic awareness	40
Integrated concepts	75
Establishing safety	25
Affect regulation	31

Psychodynamic concepts. Eighty-six units of analysis related to the content theme of *psychodynamic concepts* were often stated as “both/and” conceptualization in using somatic awareness and somatic interventions for psychodynamic clinical interventions. Ten units of analysis consistently represented this content theme as shown in Table 6.

Table 6

Psychodynamic Concepts

Unit	Content Theme
1	“My own somatic responses heighten my awareness of transference and countertransference issues.”
2	“Trauma couplings, which show up as threat responses in experiences where no trauma is actually happening, are a significant aspect of transference and projection dynamics in interpersonal relationships in the present.”
3	“Somatic interventions are a useful way to recognize one’s countertransference to non-verbal aspects of what many traumatized clients bring to treatment.”
4	“Non-verbal body based modes of communication lay the foundation of our personalities and ego defenses in our earliest years.”
5	“It completes and deepens it. Without somatic awareness and somatic interventions, psychodynamic theory and practice is literally ‘just talk!’”

6	“Somatic experience fits with theoretical constructs associated with Winnicottian object relations; specifically the provision of a holding environment.”
7	“I think that some of these patients are struggling with experience that is not verbally encoded but that otherwise functions in a manner congruent with contemporary object relations theory.”
8	“Contributions from Intersubjective and Relational theories also make space for embodied communications (including enactments) and ‘ways of being with’ that are pre-verbal and non-conscious. Somatic awareness provides access to the realm of experience—a development in psychoanalytic theory & practice that moves beyond ‘conflict theory’ and much more into the dyadic/attachment perspective.”
9	“Provides a deeper understanding of our defenses, expanding the clinician’s awareness to how the physical body, structure and posture maintain defenses.”
10	“In defensive responses or in attachment/bonding needs for healthy relationships or unmet needs that influence development and sense of self—psychologically and in the body ego.”

Recognizing the unconscious. A theoretical understanding of the unconscious is central to psychodynamically informed psychotherapy; this understanding emerged as a distinct content theme in my findings. Specific units of analysis (n=33) were identified. Table 7 reflects specific ways participants considered somatic awareness and somatic interventions as being related to recognizing unconscious material.

Table 7

Recognizing the Unconscious

Unit	Content Theme
1	“By bringing awareness on somatic aspects of my clients (and my) reality, we are better able to access here-to-for unconscious aspects of mentalization.”
2	“The unconscious is the common source for both verbal and somatic repressed or suppressed contents.”
3	“The material that emerges is not from the prefrontal cortex; rather it is from the reptilian part of the brain.”
4	“Working with felt sense or somatic experience may help us understand the unconscious.”

5	“Both allow for the processing of the conscious and unconscious in work with clients.”
6	“Unconscious communication, just in another modality.”
7	“Assisting the client in recognizing unconscious material by their body’s response.”
8	“Attachment theory identifies how patterns operate at an unconscious level.”
9	“The therapist’s use of somatic techniques with oneself can be greatly beneficial to support the capacity to think about unconscious communication.”
10	“By using somatic awareness and interventions, both I and my client are able to listen in a deeper way and bring thoughts, feelings, sensations and images from the unconscious to conscious.”

Mind-body traumatic memory. The content theme of *mind-body traumatic memory* reveals some of the ways psychodynamic clinicians conceptualize how traumatic memory is both held in the mind and by the body. The units of analysis (n = 47) were supported by the following 10 participant quotes as displayed in Table 8.

Table 8

Mind-Body Traumatic Memory

Unit	Content Theme
1	“Preverbal memory is body-based memory and somatic awareness/interventions directly influence, access, and integrate preverbal memory.”
2	“It allows clients to directly experience what is happening to them, rather than just talk about or feel what is going on.”
3	“Trauma interferes with a client’s ability to be present and somatic therapies broaden the clients capacity to be present without reinforcing a disconnect between mind and body.”
4	“Simply understanding the mind-body relationship gives clients options to choose how they want to live their lives.”
5	“Sensorimotor psychotherapy works with real-time autonomic nervous system (ANS) activity and is much more effective for processing client’s trauma than talk therapy alone.”
6	“During the assessment to increase shared understanding of a challenge a person is

	facing and how the somatic are interrelated from the client’s perspective.”
7	“We can give voice to the body, and the work is so much more efficient.”
8	“People’s bodies store trauma, so it is essential when helping people heal to work somatically.”
9	“Traumatized patients need body-mind help in order to utilize mentalization required of the psychoanalytic frame.”
10	“Early attachment patterns and also traumatic events from any age or stage become stored in implicit memory that can be accessed in the body awareness to complete incompletions.”

Somatic awareness. Some of the ways clinicians used somatic awareness in a prominent content theme show up in the way participants considered how *somatic awareness* and somatic interventions aligned with his or her understanding of psychodynamic theory and practice. These units of analysis (N = 40) are reflected in Table 9.

Table 9

Somatic Awareness

Unit	Content Theme
1	“I regularly incorporate SE on the same level as my psychodynamic work.”
2	“I believe that my own attention to somatic awareness and sensing of the client’s physiological processes strengthens the client’s interest in awareness of their own body and the relational field between us.”
3	“Awareness of patients somatic states and facilitation (where appropriate) of their somatic awareness is crucial, especially with trauma work where so much exists on procedural levels.”
4	“To support increased self-awareness and efficacy with noticing somatic experiences as a part of normal responses to adverse experiences.”
5	“When we work with trauma through the somatic lens, it makes so much more sense, and clients are relieved to know they are not crazy.”
6	“The body movement, posture, gestures are present before the person is aware of what they are trying to address.”
7	“Somatic awareness/interventions are a part of a whole person ongoing assessment and treatment.”

8	“Now I continue to experience psychodynamics from the inside out, in my own somatically based therapy.”
9	“For me, it’s ONLY been through my somatic therapy training that I have come to (much more) fully grasp, understand, and utilize psychodynamic therapy.”
10	“In order to help patients who are unable to make use of more verbal affect-based interventions.”

Integrated concepts. The content theme of *integrated concepts* demonstrates some ways clinicians align their primary psychodynamic orientation with somatically based approaches. Ten units of analysis (N = 75) are listed in Table 10 to underscore this content theme.

Table 10

Integrated Concepts

Unit	Content Theme
1	“Integrating somatic and psychodynamic is a more holistic approach that I have found to be very beneficial.”
2	“It helps me to bridge the theories I use, including attachment, psychodynamic, and systems.”
3	“From a relational perspective, it is in mirroring or polarization of posture that leads to an interaction that can be healing on an unconscious level.”
4	“Somatic practices often allow therapists to experientially access and help clients transform those experiences in a way that is more difficult or impossible through talk therapy alone.”
5	“I can’t imagine working psychodynamically without including the body as I just don’t see the body, mind, and emotions as separate.”
6	“I think of somatic awareness/ interventions as expanding psychodynamic exploration of internal experience.”
7	“To be attuned to this part of the clients experience enriches the therapist’s reflections and self-psychology’s needs of the client. (E.g. the need for mirroring, not just mental, emotional processes, but sensory experience as well—the entire person.)”
8	“Attachment traumas are wounds of relationships, so the use of relationship while negotiating traumatic stress through somatic awareness is an essential component to

	healing.”
9	“If a patient is too activated to be able to ‘think’ or ‘reflect’, somatic attunement may be the best way through.”
10	“Somatic awareness aligns most closely with the concept of co-regulation as described in both attachment and regulation therapy.”

Establishing safety. The content theme of *establishing safety* was reflected in 25 units of analysis. Ten units of analysis substantiate this content theme finding in Table 11.

Table 11

Establishing Safety

Unit	Content Theme
1	“I guess you could say that the body memory of implicit memory is something that emerges spontaneously when there is a sense of safety created through the therapeutic relationship.”
2	“Use of psychodynamic and attachment theory helps me understand the context in which each individual client will need time to build trust, safety, and develop resources.”
3	“Knowing that they are “safe” is relational and grounded in the social engagement part of the nervous system.”
4	“Healing happens most efficiently through transmission of healthy relational patterns that build capacity to tolerate intensity and complexity and feel safe.”
5	“I use somatic awareness for closure in sessions to assist in present orienting before clients leave the session.”
6	“Through the felt-sense wounds can be released from the body, often reprocessed as an adult with the safety of the therapist.”
7	“Somatic awareness can also help some people to regulate affect by providing a “safe place” to turn to.”
8	“It is difficult to engage in the cultivation of positive therapeutic alliance when the client is barely existing in survival mode.”
9	“In this way clients have become more confident in their ability to deal with transference material as well as traumatic memories without the fear of being overwhelmed.”
10	“Somatic awareness allows clients to notice reactions and signs from childhood trauma in very secure and tolerable ways.”

Affect regulation. Thirty-one units of analysis represent the content theme of affect regulation. These units of analysis identified ways clinicians used somatic awareness and somatic interventions in aligning with his or her understanding of psychodynamic theory and practice. The following 10 quotes in Table 12 exemplify this content theme.

Table 12

Affect Regulation

Unit	Content Theme
1	“Somatic awareness is one of the best tools for teaching clients about self-awareness and self-regulation.”
2	“The point of integrating some somatic work is to help patients to regulate themselves so that they can become better able to reflect on their experiences and therefore take better hold of themselves.”
3	“I use somatic interventions to help my clients attain greater self-regulation and autonomic affect control.”
4	“Enables clients to learn from their experience in the sessions, rather than be so dissociated and dysregulated that they cannot internalize from the session in a beneficial way.”
5	“Helps people to expand their capacity to tolerate a much wider range of affective states.”
6	“In time, this leads, enhances the client’s ability to self-regulate, which in turn leads to greater trust, confidence, and acceptance of both intra and inter-psychic experience.”
7	“Affect regulation leads to integration of disturbed unconscious memory that left unprocessed are harmful to living life.”
8	“Affect regulation leads to symbolic (unconscious) work.”
9	“Many find it highly regulating as they are learning to attach in a more secure and functional way through the process.
10	“It is essential to give clients tools they can be using every day for emotional regulation that can help them heal their nervous system and brain as well as their emotional experience and thought pattern.”

Additional Important Clinician Thoughts and Clinical Examples

The next open question on the survey was: “What else may be important for you to share about your clinical experience regarding the use of somatic awareness/interventions as part of your psychodynamic treatment approach with traumatized individuals?” Participants were also invited to share “de-identified brief composite clinical example of a way” they commonly used somatic awareness and somatic interventions, which were then coded into units of analysis. Actual excerpts of case examples will be presented in Chapter V for further discussion. Table 13 lists content themes and 401 units of analysis coded for this open survey question.

Table 13

Additional Clinician Thoughts and Clinical Examples

<u>Content Theme</u>	<u>Units of Analysis</u>
Interventions	102
Somatic awareness and responses	93
Integrated approach	47
Relationship	29
Empowerment, insight and healing	37

Interventions. The 102 units of analysis for *interventions* comprise the largest content theme responses to the open question on what else participants thought were important about the use of somatic awareness and somatic interventions from a psychodynamically informed perspective. To further analyze this content theme, I completed another iterative process of content theme analysis to identify sub-themes reflected in the following 10 units of analysis in Table 14.

Table 14

Interventions

Unit	Content Theme
1	“Grounding and self-regulation through grounding and self-regulation helps many of my clients recognize when they are entering a dissociative state (from PTSD being triggered) and it helps bring themselves back into their bodies.”
2	“We spent the entire session on these resources, or may have very briefly dipped into the trauma. It was an entirely different way to work and much less difficult for the client.”
3	“I use the three-phase model. If clients are only able to work on the first phase of stabilization it is beneficial. My training gives me clearer guidelines for each phase of resolving trauma.”
4	“For alexithymia patients, with complex trauma presentations and multiple adverse childhood experiences, I use somatic awareness to begin to build an affective vocabulary by making explicit the linkages between body sensations and feelings.”
5	“A simple tool I often use with clients is having them push against my hands or a pillow when they need to express anger or assertion about a past or present experience. It often allows clients to feel fully their conflict and to discharge both what they need to say and the emotion related to their experience and allows them to feel more empowered and resolved about their experiences.”
6	“I often educate people that being healthy simply means that one is able to experience both positive and negative situations (internal or external) and flow between states of being without becoming stuck. We work to experience this in the room.”
7	“With most clients I introduce tracking, grounding, and resourcing from the beginning.”
8	“Additional skills of titration and pendulation are consistently used to help clients deal with difficult traumatic material in manageable ways.”
9	“I tend to watch for organic intrinsic attempts to self-regulate (including truncated fight, flight or freeze) or other self-protective physical gestures, as well as incipient self-soothing gestures.”
10	“If I am working specifically with reprocessing trauma, I stay close to the somatic model and help the client titrate, pendulate, and complete survival responses.”

Somatic awareness and responses. The 93 units of analysis for *somatic awareness and responses* connote both clinician somatic self-awareness, and somatic awareness and response to client-observed and -reported somatic experiences as presented in Table 15.

Table 15

Somatic Awareness & Responses

Unit	Content Theme
1	“Since body-awareness is often minimized/dissociated in traumatized patients, it is most important to take the lead from them, and to proceed very, very slowly if at all with any interventions (re: somatic awareness...or anything else).”
2	“To shift into the body can be a major challenge, but once the shift happens, it’s such an enlightening experience.”
3	“Clients seem to respond to this more favorably than to frequent interpretations.”
4	“Having a clearer foundation of the threat response cycle and how the body responds has provided me a more refined framework to use the somatic awareness techniques I have learned.”
5	“I look for somatic patterns that get in the way of them moving forward with their goals and desires.”
6	“Traditional ‘talking’ therapy increased insight and intellectual understanding of his responses but he was initially entirely dissociated from his bodily responses and the numbing and explosive outbursts persisted until his ability to notice, monitor, and modulate his bodily responses.”
7	“After I become aware of activation and deactivation in the body, I was better able to help the patient help themselves.”
8	“When regressing to a time of trauma, frequent requests are made for the client to check and report on sensations in the body and then track themselves as they change.”
9	“I find somatic awareness ideal for clients immediately dysregulated by traumatic symptoms (i.e. redlining or dissociating out of the window of tolerance).”
10	“When the client understands that under threat which ignites an amygdala response we are like animals with reactions of freeze, flight, or flight, they feel much less shame that they have not been “strong enough” to resolve their trauma.”

Integrated approach. The content theme of *integrated approach* with 47 units of analysis reflected a variety of participant concepts for using somatic awareness and somatic interventions in their treatment of individuals who have been traumatized. Table 16 shows responses ranged from different ways somatic skills were used and taught, to varying brief descriptions of how clinicians integrated psychodynamic orientation with somatic awareness

and somatic interventions.

Table 16

Integrated Approach

Unit	Content Theme
1	“I also teach somatic awareness as a tool—when patients become aware of the way they hold pain, fear, and shame in their bodies, they can begin to make choices about altering these somatic habits.”
2	“I combine a Jungian and somatic approach to dream analysis that is most efficient and effective approach to the resolution of PTSD symptoms that I have ever used.”
3	“Somatic approaches have been helpful in explaining how and why this is so, and it deepens and enhances the effectiveness of interventions informed by a psychodynamic approach.”
4	“This somatic aspect of treatment is pretty well meshed into the fabric of the work, for me.”
5	“Using dual mind-body awareness, the client is able to observe the sequence of trauma-related feelings, thoughts, and body sensations.”
6	“When I help the client bring awareness to their own bodily/nervous system, attempts to regulate, and thereby potentiate and facilitate the regulatory process, it feels to me that it fits with my psychodynamic work in helping with exploration of inner experience.”
7	“Working with trauma clients for a number of years having had learned techniques prior to my awareness of the somatic orientation, in retrospect it was much more disjointed and incomplete treatment.”
8	“I sought for myself and then learned somatic interventions because my analysis did not help me with pain and certain physical issues related to trauma.”
9	“The integration between psychodynamic psychotherapy and SE creates healing and resolution.”
10	“The integration between psychoanalytic psychotherapy and SE provides the client with an understanding that allows for a shift in perspective that often will lead to a release of ongoing symptoms.”

Relationship. The clinical concept of relationship to self, relationship between client and clinician, and relational space, informed this content theme consisting of 29 units of

analysis as shown in Table 17.

Table 17

Relationship

Unit	Content Theme
1	“I am finding that the use of somatic intervention tools can help to restore a traumatized person’s trust in and relationship to their own body.”
2	“By using the therapeutic relationship, the patient was able to use me as her external regulator to have greater understanding, connection, and peace.”
3	“Tracking and body reading through the lenses of attachment trauma, the unconscious, implicit/explicit memory, etc. from the first contact I have with a client.”
4	“During the initial consultation/assessment, I am not only obtaining as much historical and diagnostic information as I can safely obtain, but I’m also assessing their system’s capacity for processing activation.”
5	“This work helps the client pay attention to and care for their nervous system in relational space, and sets the pattern for my being an ally in that work.”
6	“The therapist must be fully present in her own energy and connection with herself and communicate through her own body language that she can guide and support the person’s increased contact with self.”
7	“I’ve watched people “bloom” relationally doing this and it’s often an enjoyable and master-based therapy for them.”
8	“The somatic techniques usually help the therapist’s attunement and can heighten countertransference in the therapeutic relationship.”
9	“Understanding and normalizing the inevitability of survival responses reduces shame and reduces anxiety about going into different material for both client and clinician.”
10	“Unless we are able to help clients create new relational experiences in the felt sense, new networks will not form to unhook old patterns of relating.”

Empowerment. The final content theme for this section is *empowerment, insight, and healing*, consisting of 37 units of analysis as shown in Table 18.

Table 18

Empowerment, Insight, and Healing

Unit	Content Theme
1	“Because clients become aware of their own resources to practice these skills, it is empowering and ego-strengthening.”
2	“The patient was able to talk about an inner sense of safety, security, and capable self-care based on bodily sensations.”
3	“Client was able to stay present and stop dissociating which she was doing on a daily basis.”
4	“Completion—leaving the client with a sense of mastery, less controlled by overwhelming emotions and physical sensations.”
5	“We were able to imagine a resource which was an animal and a safe person’s hand and she was able for the first time to see that she isn’t broken and her early life environment was the problem and her struggles around relationships come from this early place.”
6	“In using somatic experience with this patient she was able to get much more regulated, but also became aware that each time things improved, she would feel parts of her body retract and become more activated as though: ‘I am holding myself back from moving on.’”
7	“I have found that unless a patient has the ability to manage their own affect and physiological arousal, they cannot process through their early patterns in order to live a fully engaged and rich unhindered life.”
8	“When the entire trauma has been completed without any overwhelm, the trauma is mostly healed.”
9	“I have had clients who have suffered from a life time of anxiety heal in several sessions.”
10	“This then assists the client in integrating the repaired experience into the mind and body.”

Concerns Related to Using Body-Based Somatic Interventions

This study confirms that some psychodynamically informed clinicians are using somatic awareness and somatic interventions in their treatment approaches with individuals who have been traumatized. The last question posed to the participant population is extremely important: “What, if any, are your concerns about using body-based somatic interventions

with traumatized individuals?” Six salient content themes were derived from sorting 234 units of analysis detailed in Table 19.

Table 19

Concerns Related to Using Body-Based Somatic Interventions

<u>Content Theme</u>	<u>Units of Analysis</u>
Trauma informed	91
Training	56
Readiness	35
Body awareness	22
No concern	20
Touch	10

Trauma-specific. Ninety-one units of analysis were sorted into the content theme of *trauma-specific*. An additional iteration of sorting was undertaken to accurately represent sub-themes. Ten quotes in Table 20 represent examples of this content theme.

Table 20

Trauma-Specific

Unit	Content Theme
1	“This can result in a rapid breakdown in amnesic barriers for which the client is not prepared resulting in serious risk of re-traumatization and regression.”
2	“It cannot be rushed, and the client’s disconnection from body experiences must be respected.”
3	“Therapists must ensure the client is in the window of tolerance or has completed phase 1 treatment first before moving into trauma processing.”
4	“I believe it to be very important to move slowly and lay the groundwork for capacity in their nervous system.”
5	“Being attuned to the client and lending of the clinician’s nervous system when the client is not tracking and is observed to be re-experiencing trauma without being in a position of empowerment.”

6	“It is important for traumatized individuals to avoid dissociation any more than necessary, so I try to track to be sure client stays present in the room while tracking somatic experience related to trauma memories.”
7	“In the absence of appropriate titration and careful monitoring, highly traumatized clients (especially dissociative clients) can be overwhelmed by awareness and physical sensations.”
8	“I think it is also important that the clinician feel comfortable and confident in his or her ability to track and to support the client should they become overwhelmed and need more direction to become grounded.”
9	“Clinicians being extremely aware and clinically conscientious of the impacts of any experiments or interventions that include any physical touch.”
10	“Potential use of touch in psychodynamic therapy, sometimes moving away from understanding the content/communication in a desire to regulate, which may skip over an important piece that needs to be understood.”

Importance of training. The content theme of *importance of training* was identified in 56 units of analysis. Table 21 shows 10 units of analysis, as represented in sub-themes that were ascertained by an additional iterative sorting process. I sorted each batch of content themes into sub-themes to attain a range of responses capitalizing on the exploratory intent of this research.

Table 21

Importance of Training

Unit	Content Theme
1	“I do have a concern that many therapists have not done enough of their own personal work and therefore ground, orient and resource too soon /or too often for fear of re-traumatizing the client and they don’t allow the client to feel enough sensation because of their countertransference.”
2	“My concern is that there are not enough practitioners courageous enough to learn more and implement it into their practice, so people will continue to languish in the mental health system.”
3	“The lack of recognized evidence base for effectiveness of somatic experiencing approach to reprocessing trauma is also an issue in terms of adhering to recognized best practices.”

4	“Master’s program, involving psychodynamics, but they can sure use basic somatic skills to better stabilize and support patients in the field.”
5	“I feel that the training would be much better absorbed in a graduate school style: a weekly ongoing format in smaller and more concise doses; and with more regular contact with peers and clinical community.”
6	“I have no concerns with this, as long as clinicians using these approaches are well-trained and in ongoing consultation with persons who either assist at these trainings or are expert in the particular body-based modality being used.”
7	“In order to ethically and effectively use a biophysiological approach, the practitioner must be thoroughly trained and must experience the work as clients.”
8	“I observe that practitioners sometimes think that body-based interventions and tracking replaces good clinical training, rather than completing it and deepening it.”
9	“I do not think that body based approaches alone are safe because they do not include enough training in general psychotherapy or in the relational dynamics of trauma therapies.”
10	“Although I’ve read and studied with some truly amazing people (Francis Somers Anderson as part of my trauma training at the Manhattan Institute for Psychoanalysis and Pat Ogden for a week at Cape Cod Institute) these experiences were more ‘introductory’.”

Client readiness. The content theme of *client readiness* was found in 35 units of analysis of data-related participant concerns about the use of somatic awareness and somatic interventions. Table 22 shows 10 units of analysis consolidating primary areas related to readiness.

Table 22

Client Readiness

Unit	Content Theme
1	“That it is pointless to attempt to process trauma or engage developmental issues when a system is fundamentally disorganized.”
2	“It is most important—as with any intervention—that the therapist has a sense of how well the patient may be able to utilize any intervention and how to work with the patient if the intervention goes awry.”
3	“There is no fail-safe way to prevent this, but being aware of the clients internal and external resources, emotional regulation capacity, resilience, and desire to contact

	their somatic experience are all indicators of readiness.”
4	“For some patients, body awareness may become overwhelming if the patient’s ego strengths are compromised.”
5	“Somatic interventions must be done with caution and only when the client is ready.”
6	“Given the protective nature of denial and dissociation, it is most important to wait until the patient is both consciously and unconsciously ready for any explicit somatic awareness.”
7	“I don’t have any concerns as long as an assessment is done about the client’s ability to sense a resource and/or sense grounding.”
8	“Premature reduction of protective depersonalization, derealization, etc.”
9	“There is often a disconnect between the patient’s need to go as fast as possible and my need to make sure treatment is titrated too within the patients window of tolerance.”
10	“It can be dysregulating initially and misunderstood by the client and/or other if not well framed.”

Body awareness. *Body awareness* is a content theme reflected in 22 units of analysis.

The focus of this content theme related to caution or challenges with body awareness as shown in Table 23.

Table 23

Body Awareness

Unit	Content Theme
1	“People who have been traumatized may need help staying in their bodies and being present during the session.”
2	“It can elucidate feelings of inadequacy for clients challenged with being in their bodies. (‘I feel like I am failing at this.’)”
3	“No concerns, just challenges, because most people don’t readily go to the body, so I have to really be creative and often spend a long time building body awareness and attention to sensations.”
4	“Though developing comfort with engaging the body may take time, other ways that somatic experiencing helps the clinician stay focused on nervous system regulation and engages that therapist in the regulation will nonetheless be helpful.”

5	“Watch it if the trauma is rape or something where the body itself was hurt or otherwise violated.”
6	“It is important for the clinician to be attuned to the clients comfort or discomfort when engaging their body in any way.”
7	“They, the therapist, just got caught in being afraid of the client’s body sensations, just as the client may be.”
8	“Overwhelming those with sexual trauma for whom premature curiosity about their bodies can feel dangerously intrusive.”
9	“For individuals that are highly cognitive and disconnected from their sensory experience, I believe it will take a longer period of time with somatic therapy.”
10	“One might say that their pre-frontal cortex and attendant executive function lacks the capacity for self-awareness and tracking that body-based somatic interventions require.”

No concern. A small number (20) of units of analysis indicated “No Concern”. Of these 20 units of analysis indicating “No concern”, the respondents stated a one-word response: “None.” 5 of the units of analysis that were not one-word responses are listed in Table 24.

Table 24

No Concern

Unit	Content Theme
1	“It’s a powerful intervention, but I have no concerns.”
2	“Same as with any theoretical or defined approach.”
3	“I have fewer concerns than I did earlier.”
4	“I don’t personally have concerns about using body-based somatic interventions with traumatized individuals.”
5	“I haven’t had any trouble with this.”

Touch. The content theme of *touch* was identified in 10 units of analysis; each unit is listed in Table 25.

Table 25

Touch

Unit	Content Theme
1	“The power of the use of touch raises professional and ethical issues for me which I am still working through.”
2	“I have not yet incorporated touch work into my practice except where necessary for grounding purposes.”
3	“The use of touch needs to be addressed much more fully in the entire field of psychodynamic therapies as well as body based therapies.”
4	“Touch can be a very effective somatic strategy for nervous system stabilization but I am mindful of proper psychotherapeutic boundaries and do not use this intervention often.”
5	“The possible use of appropriate planned interventions that may include some touch contact for powerful change.”
6	“Care must be used with the use of therapist direct touch if the client tends strongly towards paranoia or fantasy.”
7	“I have been trained to not have physical contact so making this adjustment may be difficult for me.”
8	“I am not finished with my SE training and I am concerned about actual contact with patients.”
9	“The issue of touch and culture of licensing boards.”
10	“Touch is an essential and first human communication tool; to have professional organizations ban touch is a reactive position that actually compounds the problem due to the need for education and understanding.”

Researcher Bias

As primary researcher, I am aware of my biases in favor of the clinically supported use of somatic awareness and somatic interventions from a psychodynamic perspective. My strong belief in the selective use of neurobiologically informed interventions is anchored in

my direct clinical social work practice. Since 1990, I have been treating individuals who have been traumatized from a somatically informed perspective. Additionally, I am a proponent of valuing my own heuristic clinical experience, and valuing practice-based evidence as an equally relevant form of clinical knowledge that can immeasurably contribute to positivistic forms of knowledge. As evidenced by my research, many clinicians' heuristic processes of assimilating contemporary neurobiological information alongside clinician/patient experiences are prompting an advancement of psychodynamic theory and practice with individuals who have been traumatized.

My interest in the rethinking of theoretical concepts through *assimilative integration* of somatic awareness and somatic interventions within a psychodynamic lens influenced my subjective interpretation of the qualitative data. By purposefully maintaining self-awareness during the coding process, I was careful to not to overlook narrative units of analysis that minimized any perspective different from mine. In addition, by involving the three clinicians/colleagues to help code the data, provided inter-rater reliability that would carry through the iterations of coding the datum. While each of the coders brings his or her own bias, they all expressed that being able to discuss both the emerging categories and specific units of analysis was helpful to be mindful of their own bias. Having multiple subjectivities consistent with *critical realism* in the coding process supported me in thinking from perspectives other than just my own.

Reliability

To increase *reliability* of content theme analysis, I asked three clinicians/co-researchers who participated in the online survey to sort through units of analysis into content themes. They were each given the same instructions. Each person was asked to use a somatic

grounding technique before beginning. Each coder was asked to reflect on the experience and share their thoughts. A total of 879 units of analysis were sorted into themes.

The clinicians participating in coding for themes communicated with each other to clarify thoughts and concerns and to build in inter-rater reliability. One clinician stated, “I felt that we created a field together that made us more precise and open to the unexpected.”

Another clinician stated, “It proved to be very helpful to be working with another person who was sorting a different question; we could bounce ideas off each other and confirm proper placement of several of the units of analysis.” A third coder several insights related to the study issue and sorting experience:

What stands out to me the most regarding the content of the themes is the value of developing accessible tools to integrate body-based interventions into frameworks of trauma-informed care and the three stages of trauma treatment to increase ethical and clinically informed use of body-based interventions in tandem with practitioner skill levels (i.e. less experienced clinicians would remain in stage one and refer out for stages 2 and 3). Additionally, opportunity for practice-based experience of body-based practitioners to inform trauma informed care and the three stages of trauma treatment.

The process of sorting paper cards with individual concepts likely shaped the outcome of identifying themes when compared to software-sorting programs such as ATLAS. Having various stacks of themes and adjusting them as needed through the sorting process enabled a visual element that I found useful to facilitate the process without technical barriers to theme sorting (i.e. not being able to visually see all the themes and sorted concepts at once or the burdensome process of changing theme categories).

From the perspective of *critical realism*, the inclusion of co-researchers is a required

aspect of my epistemological position. One coder expressed, “My bias informing this process as a research assistant regards the use of the language, *traumatized individual*. The use of this language can reflect professional talk locating pathology within the individual who has experienced trauma. For example, perpetuating the belief that individual is the problem rather than this experience or experiences that have occurred having an impact.” Based on this feedback and my own desire to not pathologize individuals’ reaction to the impact of traumatic experience, I changed the descriptor -- *traumatized individuals* -- to *individuals who have been traumatized* throughout this manuscript.

Summary of the Major Findings

The major study findings of this MMS are conceptually organized through the integration of the quantitative and qualitative data findings. The major findings are best understood in the context of *priority*, *sequence of methods*, and *integration* of the quantitative and qualitative data. The quantitative data has priority because the statistical confirmation of this clinical phenomenon along with the numerical data creates a framework to begin understanding the decision-making process of psychodynamically oriented clinicians’ use of somatic awareness and somatic interventions lay the foundation for this study. First, the major findings related to the differences between the *primary study cohort* and the *excluded study cohort* is presented. Then the major quantitative findings that confirm that this treatment phenomenon is occurring will be presented. This section concludes with the major findings related to the decision-making process of why, when, and how psychodynamically informed clinicians are using somatic awareness and somatic interventions in their treatment of individuals who have been traumatized.

Substantiating the Phenomenon

The findings of this research substantiate the clinical practice phenomenon examined in this study. The first research question, “Are some psychodynamically informed clinicians utilizing somatic awareness and somatic interventions adapted from three somatic models (Somatic Experiencing, Trauma Resiliency Model, and Sensorimotor Psychotherapy) in their treatment with individuals who have been traumatized?” was confirmed through the statistical analysis of the quantitative data. The *primary study cohort*, N=156 is defined by meeting the full criteria for the study, and represents a statistically significant cohort of psychodynamically informed clinicians confirming their use of somatic awareness and somatic interventions in their treatment of individuals who have been traumatized. Though the primary study cohort was attained by non-probability sampling, a breadth of professional organizations were included in the survey distribution to assure a wide range of clinician perspectives.

Respondent training in body-based method(s). Relevant findings related to *primary study cohort* characteristics were identified in the quantitative data related to respondent’s specific training in a body-based method and reasons for learning a body-based method. Though SE was the most popular method selected by respondents, the category of “other” received the second highest response. Twenty-four different approaches that respondents considered met the description of a body-based somatic approach were captured in the “other” body-based methods answer option. Ten respondents answered Eye Movement Desensitization and Reprocessing (EMDR) in the category of other, and the description “attachment focused EMDR” was used by one respondent. While SE, TRM, and SP were selected to set manageable parameters to begin to study this phenomenon, the rate of response to “other” is a significant finding. Given the finding underscoring the use of other models

related to SE, TRM, and SP, understanding the most frequently used interventions among the respondents warrants further discussion.

Clinical Decision-Making Process

A primary inquiry of this research project was to attain an in-depth discovery of psychodynamic clinicians' decision-making processes involved in their synthesis of somatic concepts. Several quantitative and qualitative findings that are related to why, when, and how psychodynamic clinicians utilizing somatic awareness and somatic interventions in their treatment of individuals who have been traumatized reveal a deeper understanding of respondents clinical decision-making process. Four main reasons for training in a body-based method were operationalized in the quantitative section of the survey. The highest percentages of responses were identified as: (a) recognizing the need to include somatic body-based perspective in treatment of traumatized individuals; (b) to address limitations with a strictly “talk therapy” psychodynamic approach; (c) to offer patients/clients self-regulation or self-control skills. These responses that revealed key elements of the clinical decision-making processes, combined with the finding that 98% of the respondents consider the use of somatic awareness and somatic intervention to be congruent with their psychodynamic/psychoanalytic perspective, and 91% indicating that it is extremely to somewhat relevant that their use of somatic awareness and somatic interventions be theoretically grounded in psychodynamic practice.

Relational Psychodynamic Practice and the Synthesis of Somatic Concepts

By integrating the quantitative and qualitative findings, several psychodynamic relational theory and practice concepts are identified that support the synthesis of somatic concepts for the treatment of individuals who have been traumatized. Quantitative findings

determined that 98% of respondents consider their use of somatic awareness and somatic interventions to be congruent with their psychodynamic orientation.

Trauma-Specific Psychodynamic Treatment with the Synthesis of Somatic Concepts

Findings identify a trauma-specific somatically informed treatment approach. The respondents that make up the “primary study cohort” are all psychodynamic clinicians who are using somatic awareness and somatic interventions. When findings related to theoretical perspectives that include the operationalized key somatic concepts coalesced, a trauma-specific somatically informed psychodynamic approach emerged.

Vicarious traumatization. Respondents indicated that the use of somatic awareness and somatic interventions were useful as a protective mechanism to reduce vicarious trauma. This finding is important because the impact of vicarious traumatization can be challenging in a number of ways that impact both the clinician and the client.

Phased-Based Treatment for Trauma-related Condition

In the introduction of this research project, special focus was placed on the necessity of a phased-based treatment framework when working with individuals who have been traumatized. Quantitative and qualitative findings determine that many respondents adhere to a phased-based approach that is theoretically supported by psychodynamic theoretical concepts and the somatic perspectives they synthesize. Respondents indicated that the use of *grounding, resourcing, and tracking* are used as a part of stabilization, the first phase of treatment for an individual who has been traumatized. Phase two of treatment, *reconsolidation* of traumatic memory, was identified as an aspect of *assimilative* integration with somatic awareness and somatic interventions and psychodynamically informed practice. This is an additional finding that supports a phased treatment approach.

Concerns

The qualitative findings that were related to concerns that clinicians have about using somatic awareness and somatic interventions were disparate. While there were minimal responses to the open-ended question asking about concerns, other narrative responses from questions asked earlier in the survey reflected several areas of concerns. A deeper examination of the data related to concerns will be discussed in the next chapter.

Differences between Primary Study Cohort and Excluded Study Cohort

Preliminary findings in the statistical analysis suggest that demographic differences do exist between psychodynamically identified/oriented clinicians who are trained and who use body-based methods in their clinical practice and the clinicians who only met the initial survey threshold. The demographic finding of percentage differences of clinician caseloads with PTSD warrants further discussion.

EMDR as a Somatic Relational Model

A serendipitous finding related to the use of EMDR as somatically informed model and a relationally practiced model, is evidenced in the qualitative data. Having identified EMDR in the literature review as having developed strong neurobiological underpinnings, and it can therefore seem as related in some pertinent ways to SE, TRM, SP, and related somatic models. However, this finding warrants further investigation in regard to clinical practice and research.

Assimilative Integration

Findings support that theoretical congruence of somatic awareness and somatic interventions and psychodynamic theory and practice for psychodynamically oriented clinicians are important, and that all six quantitative measures connecting this importance to

psychodynamic practice with individuals who have been traumatized are reflective of theoretical concepts that align with relational psychodynamic psychotherapy.

Somatically Informed Psychodynamic Relational Approach and Treatment Trends

Empirical literature that identifies and forecasts treatments trends, identify several aspects of a somatically informed psychodynamic relational approach as increasing to meet client's treatment needs. An overview of the findings support that this approach focuses in key areas that are forecasted to gain popularity, specifically relationally oriented approaches that are informed by neuroscience.

Conclusion

Both quantitative and qualitative results presented in this chapter were derived from data collected using a mixed methods online survey distributed to a diverse population of clinicians who were likely to be psychodynamically oriented and/or trained in one or more well-known somatic models. The mixed methods design of this study generated robust quantitative data confirming that psychodynamically educated clinicians are adapting somatic awareness and somatic interventions into their treatment of individuals who have been traumatized. Findings from the quantitative data analysis illuminate why, when, and how somatic awareness and somatic interventions are being used and how some clinicians are thinking about their use of somatic approaches from a theory and practice point of view. While fewer participants (113) chose to answer open-ended questions compared to the total Primary Study Cohort of 156 respondents, a substantial amount of qualitative data were generated from 879 units of content analysis. The qualitative data contributes to a deeper understanding of the research phenomena studied, and calls for a more comprehensive exploration of this highly relevant research issue to better serve patients who have been traumatized.

CHAPTER V

Discussion

This discussion of the major findings is informed by the exploratory mixed methods study (MMS) design developed to most effectively understand the phenomenon expressed by psychodynamically oriented clinicians who synthesize somatic concepts in the treatment of individuals who have been traumatized. Through the integration of the quantitative and qualitative findings, a comprehensive understanding of this clinical practice phenomenon is discussed in relationship to the empirical and theoretical literature. As the clinician researcher, I am eager to discuss these major findings that undoubtedly contribute important theory and practice knowledge to the field of clinical social work and the study of traumatology. Inspiring a vital discourse among psychodynamic clinicians and trauma-specific researchers about the synthesis of psychodynamic ideas with neurobiological concepts related to revising theoretical ideas and practice approaches for the treatment of trauma-related conditions.

In this chapter, the qualitative and quantitative findings will be analyzed to the extent that they support or challenge the knowledge base. As an introduction to the discussion of the major findings, I briefly situate the literature base compiled for this exploratory research, and provide a rationale for developing this mixed-methods study (MMS) design to empirically confirm this clinical treatment phenomenon. The discussion of the major findings, summarized in Chapter IV, begins with the results that empirically substantiates the phenomenon, and follows with the findings that deepen our understanding of why, when, and how psychodynamically oriented clinicians are synthesizing somatic concepts in their

treatment of trauma-related conditions. Next, notable differences between the “primary study cohort” and “exclusion study cohort” and theory and practice findings are discussed. The chapter continues with discussing limitations of the study, implications for future research, implications for clinical social work practice, and implications for education.

Literature Base for Exploring this Phenomenon

Due to the exploratory nature of this study, I relied more on historical and contemporary theoretical literature than empirical literature to develop a scaffolding to contextualize a logical space for this research project. Much of the literature reviewed for this study comes from psychodynamically educated clinicians, researchers from diverse disciplines, and a minimal number of empirical studies related to the specific study issue. Undeniably, many clinicians and researchers are committed to understanding the multiple levels of impact that traumatic event(s) can have on individuals for the sole purpose of developing more effective treatments for those suffering from trauma-related conditions. Schore, J.R. (2012) articulates the concept of, “interpersonal neurobiology” emphasizing that “an effort should be made to institute an interdisciplinary approach to psychodynamic concepts from interpersonal neurobiology” (p. 92). From a *relational model* point of view, the findings discussed in this chapter demonstrate that a high number of psychodynamically oriented clinicians are explicitly assimilating somatic awareness and somatic interventions from a neurobiologically informed perspective.

Priority and Integration

Methodologically, the quantitative findings of this study are given *priority* because confirming this phenomenon empirically is integral to this research. *Integration* of the qualitative findings with the quantitative findings is used to support and deepen our

understanding of this phenomenon. An important note is that a high number of psychodynamically oriented clinicians are assimilating somatic awareness and somatic interventions for the treatment of individuals who have been traumatized. Given that our dominant research paradigm, governing all aspects of clinical research, privileges quantitative research, I chose this mixed-methods study (MMS) design as a way to begin bridging the gap between the theoretical and empirical literatures, and to bridge the epistemological gap between evidence-based practice (EBP) and practice-based evidence (PBE).

Substantiating the Phenomenon

A landmark finding of this study is substantiating empirically that psychodynamically oriented clinicians are assimilating somatic concepts into their practice approach with individuals who have been traumatized. The statistical analysis of the quantitative data confirmed that a significant number of psychodynamically oriented clinicians are using a synthesis of somatic awareness and somatic interventions adapted from neurobiological body-based models. Although this confirmatory finding is supported by the empirical and theoretical literature in several ways, the discussion of all the findings in this chapter pivot on the statistical confirmation of this phenomenon.

Prior to this study, the evidence of this treatment phenomenon was based primarily on theoretical literature, secondarily on a small number of empirical field-based exploratory studies, anecdotally on case studies, and also in publications describing culturally informed implementations of somatic body-based interventions in post-natural disaster or post-war environments (Allen, Leitch, & Vanslyke, 2009; Classen, Kirsh, & Langmuir 2012; Doctor, Parker, & Selvam, 2008; Hays, 2014; Levine, 1997, 2010, 2015; Leitch, 2007; Minton, Pain, & Ogden, 2006; Wöller, Leichsenring, Leweke & Kruse, 2012). Only a small portion of the

theoretical and empirical literature is specific to psychodynamic practice and the assimilative use of somatic concepts with individuals who have been traumatized.

The Synthesis of Psychodynamic and Neurobiological Concepts

Both quantitative and qualitative data affirmatively corroborate that the study population, psychodynamically oriented clinicians who are adapting SE, TRM, SP and similar somatic concepts, are linking theoretical and practice perspectives with the assimilative use of neurobiologically informed interventions. This finding is supported by the empirical and theoretical literature that articulates an inter-weave with neurobiological concepts pertaining to the treatment of trauma-related sequelae (Classen, Kirsh, & Langmuir, 2012; Minton, Pain, & Ogden, 2006; Schore, 2003a, 2003b, 2012; Porges, 2011; Wöller, Leichsenring, Leweke, & Kruse, 2012). Further illustrated by this finding is the distinct *assimilative integration* of clinician self-awareness of sensations and observations of changes happening with her/his own body as informative of the clinical relationship.

Clinical Decision-Making Process

The study findings deepen our understanding of *why*, *when*, and *how* the synthesis of psychodynamic practice with neurobiologically informed somatic awareness and somatic interventions occur in the treatment relationship. The survey instrument developed for this study collected a combination of quantitative and qualitative data that illuminate why, when and how psychodynamic clinicians are using somatic concepts in the treatment of individuals who have been traumatized. Again, the quantitative data is given *priority* in this discussion to build on the empirical strength of the data to address gaps in the literature on this highly relevant study issue. By closely examining the findings that exemplify the common reasons that inform this complex decision-making process, we can advance our theoretical ideas, we

can theoretically ground our clinical interventions, and as clinical researchers, we can apply this knowledge to develop empirical research studies that contribute to a neurobiologically supported psychodynamic treatment.

A specific objective of this study was to collect data that would disclose the clinical thinking process respondents engage in to understand why, when, and how they decide to use somatic awareness and somatic interventions. In the following sections, I will first discuss the findings that confirm *why* respondents are synthesizing somatic concepts. Next, the discussion will continue with the findings that reveal *when* in clinical treatment situations they use somatic concepts. Lastly, the common ways that the findings demonstrate *how* respondents use somatic concepts will be addressed.

Why?

Understanding why psychodynamically oriented clinicians are engaged in *assimilative integration* of somatic awareness and somatic interventions into their primary theoretical orientation is a crucial inquiry of this study. The quantitative finding that the majority of respondents n=138 (77%) recognized a need to add a body-based somatic dimension to their work with individuals who have been traumatized is closely associated with the finding that these somatic concepts address limitations with providing talk therapy exclusively n=117 (75%). This expanded relational capacity through somatic awareness and somatic interventions is central to the reason why psychodynamically oriented clinicians have developed *assimilative integration* use of body-based treatment concepts. In addition, 95% n=148 respondents indicated that the main reason they use somatic awareness and somatic interventions is because their client/patient is experiencing a moderate to severe trauma-related stress response in the treatment session.

Empathic attunement. A high percentage of clinicians (86%) indicated that the main reason they use somatic awareness and somatic interventions is to strengthen empathic attunement. Certainly the importance of empathic attunement in working with individuals who have been traumatized is emphasized in the empirical and theoretical literature, and empathic attunement can be protective for the client/clinician relationship. Strong empathic attunement can be helpful in monitoring what Basham (2011) describes as the “victim-victimizer-bystander dynamic” that can be internalized by the client and present in the therapeutic relationship, and the need for the clinician to “vigilantly avoid blaming the victim” for causing the traumatic experience (p. 456-457). Because traumatic re-enactment is anticipated in the clinical process with an individual who has been traumatized, extra vigilance is needed to assure these events are reparative and not re-traumatizing.

Qualitative support for empathic attunement. The qualitative theme of empathic attunement relating to the importance of empathy was a theme shared by many respondents. One respondent expanded on the use of somatically informed empathic attunement as a way of being aware of “trauma couplings, which show up as threat responses in experiences where no trauma is actually happening, and are a significant aspect of transference and projection dynamics in interpersonal relationships.” Using empathic attunement supported by somatic awareness and somatic interventions during early engagement and early development of the therapeutic alliance was a sub-theme in the qualitative data.

Somatic communication. Many narrative responses expressed by participants related the use of somatic awareness and somatic interventions as a form of non-verbal communication, especially if their client was experiencing alexithymia, dissociation, depersonalization, or regression. One respondent stated that somatic awareness is a way to

recognize when “patients are struggling with experience that is not verbally encoded but that otherwise functions in a manner congruent with contemporary object relations.” Another respondent associated “Somatic experience fits with theoretical constructs associated with Winnicottian object relations; specifically the provision of a holding environment.” Winnicott (1960) wrote that the environmental provision requires empathy and that in a time of absolute dependence “physiology and psychology have not become distinct” (p. 48-49). Clinicians being able to understand the felt-sense of an individual who has been traumatized expands the relational holding environment beyond verbal experience.

When?

Respondents confirmed several central reasons for when they use somatic awareness and somatic interventions. A highly relevant finding indicated that 148 (95%) chose to use somatic awareness and somatic interventions when their client appears to be experiencing moderate to severe trauma-related stress. Another finding related to when respondents use somatic concepts is that n= 117 (77%) of the respondents confirmed that they use these somatic concepts during the initial stabilization phase of treatment. This initial phase of treatment is also when client engagement is critical. Many clients may enter treatment struggling with dysregulation and are unable to move to the next phase of treatment until they are stabilized. Another finding revealed that n=120 (77%) of the respondents use somatic awareness and somatic interventions when they recognize a clinical need to synthesize a body-based perspective in the treatment of a client who has been traumatized. From a psychodynamic relational perspective, theoretical literature supports these mutually acknowledged moments of recognition as a relational “sensibility” (Aron & Harris, 2005). Another time in the treatment process that respondents indicated when they use somatic concepts is during the second phase

of trauma treatment.

Sixty-nine percent (n= 117) indicated that they use somatic concepts to facilitate reprocessing traumatic memories during this phase of treatment. The reason for this lower percentage of respondents may be due to differing levels of training with somatic skills specifically used to *titrated* and *pendulate* physiologically associated traumatic sequelae. This survey operationalized six somatic skills usually taught in the beginning of training in somatic models. A somatic process called, “completing a defensive response” is specifically used to complete reprocessing and aligns with reconsolidation of traumatic memory (Leitch & Miller-Karas, 2007; Levine, 2010; Payne, Levine, & Crane, 2015). Reprocessing traumatic memory can be actively facilitated with somatic skills usually taught in level two trainings, empirical and theoretical literature supported that reprocessing can occur naturally with basic somatic awareness and somatic intervention skills. Interestingly, Winnicott included a focus on “spontaneous gestures” into his theoretical perspective and encouraged more observation than interpretation of clients “spontaneous gestures” (Davis & Wallbridge, 1981, p. 25). I speculate that some of the respondents’ synthesis of these concepts with their psychodynamic orientation happens in a way that doesn’t explicitly link the intervention with reprocessing and reconsolidating traumatic memory.

How?

Another important component of the decision-making process is to understand how psychodynamic clinicians are adapting and assimilating somatic awareness and somatic interventions. Findings related to the most frequently utilized somatic interventions, provides us with a deeper understanding of the assimilative integration process occurring among some psychodynamic clinicians. The Trauma Resiliency Model (TRM) is taught as a skill-based

approach that is reflective of shared neurobiologically informed concepts also found in Somatic Experiencing (SE), Sensorimotor Psychotherapy (SP), and other similar approaches (Leitch & Miller-Karas, 2010, 2013; Levine, 1997, 2010; Ogden, Minton, & Pain, 2006; Payne, Levine, & Crane, 2015). Using a Likert-scale type question, respondents rated six somatic interventions operationalized from TRM training materials so that the most frequent ways somatic interventions are used among the primary study population could be identified. Also, embedded in the exploration of how psychodynamic clinicians use somatic concepts is the way somatic self-awareness is used to inform clinical decisions.

Somatic interventions. Understanding the most frequently used somatic interventions among the respondent illuminates how psychodynamic clinicians use somatic interventions. The finding that *observing/tracking* is the most likely somatic intervention that respondents use n=90 (58%) may be due to the fact that *observing/tracking* is a foundational skill that most other somatic interventions build upon. Two other somatic intervention skills, *grounding* and *resourcing*, were also frequently used. The quantitative and qualitative data support that these three somatic interventions are used most often when a client/patient is dysregulated and the need for stabilization is paramount in the treatment session.

Somatic awareness. For the purpose of this study, somatic awareness is defined as “Conscious/deliberate self-awareness of one’s own bodily sensations, and observations of client’s physiological responses/gestures during a therapeutic encounter.” As noted in the previous section on why psychodynamic clinicians use somatic awareness, it bears repeating that a high percentage of respondents, n=131 (86%), indicated that they use observing/tracking of their own bodily sensations to strengthen empathic attunement. This finding relates to both why and how somatic awareness is used. Seventy-eight percent (119) of the respondents

indicated that they used somatic self-awareness to assist in monitoring transference and countertransference phenomena. Some of the theoretical literature expounds on somatically informed concepts such as *somatic transference and countertransference* (Dosamantes-Beaudry, 1997; Ogden, 2004) includes somatic awareness in the relational experience of *reveries* that can be part of intersubjective awareness. This finding clarifies another important way psychodynamic theory and practice is cohesively assimilated with somatic awareness.

Relational Psychodynamic Practice and the Synthesis of Somatic Concepts

By linking specific quantitative and qualitative findings that are cohesive with central concepts of relational theories, a trauma-focused psychodynamic practice emerges that synthesizes somatic concepts. An abundance of historical and contemporary theoretical literatures delve into relational theories defined in the most basic way as advancement from a “one person psychology” to a “two person psychology” (Berzoff, 2011; Bollas, 2011; Connors, 2011; Ferenczi, 1929; Greenberg & Mitchell, 1983; Guntrip, 1969; Mitchel & Aron, 1999; Mitchell, 2000; Ogden, 1989, 2001, 2004; Sullivan, 1940). The relational theoretical concepts most salient to this discussion are those that expand our understanding of transference and countertransference, our understanding of how we engage with our clients in relationship to traumatic experience and traumatic memory, and how we expand our understanding of the subjectivity of the clinical dyad. As so eloquently stated by Guntrip (1969), “psychotherapy can only be carried out by those who are prepared to be exposed to all the subtle reactions that go on between two human beings who meet on an emotional rather than on an intellectual plane; and who are prepared to accept awareness of these reactions as essential to treatment” (p. 353).

The qualitative data thematically supports the finding that psychodynamic clinicians use somatic awareness and somatic interventions as an assimilative modality. Frequently, respondents described numerous ways that somatic awareness and somatic interventions “complete and deepen” a psychodynamic perspective. This finding is well supported by historical and contemporary theoretical literature that recognizes the clinical relevance of the *embodiment* of trauma-related sequelae from a developmental theoretical point of view (Bion, 1959; Dosamantes-Beaudry, 1997; Ferenczi, 1929; Freud, 1926, 1950 [1895]; Guntrip, 1969; Mitchell, 2000; Morgan-Jones, 2009; Ogden, 2004; Orange, Atwood, & Stolorow, 1997; Winnicott, 1960). Fundamental psychodynamic theoretical concepts, as well as more contemporary relational and intersubjective theoretical concepts, are expanded by the synthesis of somatic awareness and somatic interventions aligned with a developmental perspective.

Relational Psychodynamic Practice and Assimilative Integration of Somatic Concepts

Many findings in the qualitative data can be expounded on from a relational psychodynamic perspective and are supported by the theoretical literature. Purposefully, I did not use the term “relational” in the survey because I wanted to cast a wide net in regard to psychodynamic theories. Several respondents either used the term “relational” or referenced a relational psychodynamic approach in their work with individuals who have been traumatized. The following excerpt from the qualitative data is a brief de-identified case example.

An example of using the body in relationally oriented psychodynamic psychotherapy would be the following:

A client has an experience of tracking sensations in her body, bringing curiosity to what she may be feeling. Suddenly, she opens her eyes, looking at me, imagining that it is time to come back. I ask if she really wants to be done yet, if she really wants to be

focused on me and then invite her to check inside to see if she's truly ready to stop. She says she is not actually ready to leave her internal experience and continues being focused on what is happening for her inside [The use of the term 'inside' is used by some clinicians to indicate an awareness and tracking of internal bodily sensations]. We do this a couple of times and, by the end of the session she is surprised to realize how quickly she leaves her experience to make sure everything is all right with me. Her attachment dynamics and relationship with her caregivers make it understandable that she has developed this particular relational coping response, and bringing her awareness to it, through checking with her body, leaves her feeling more clear about relational boundaries and more connected relationally.

Overall, the qualitative findings reveal a more implicit than explicit understanding of relational psychodynamic theories. While the *assimilative integration* of psychodynamic practice with neurobiologically informed concepts often brings interpersonal co-created subjective experience into the clinical dyad, I speculate that we are just at the beginning of learning to communicate the theoretical and practice concepts that will create a professionally shared understanding of a relational perspective in our work with trauma-related treatment.

Transference and Countertransference. Both quantitative and qualitative findings support a relational theoretical understanding of transference and countertransference. First, recall that relational theories conceptually convey a merging and mingling of clinician/client subjective experience that is central to the treatment. This subjective experience includes somatic experience and is essential to truly understanding our clients' subjective experience of traumatization. Ferenczi (1909) believed that remaining objective was a way to distance from our clients' subjective experience of traumatic sequelae, and that actually feeling the clients'

subjective sensations in our bodies was important to the treatment.

Dosamantes-Beaudry (1997) described the concept of *somatic intersubjective dialogue* conveys that somatic awareness is a way to observe and be aware of embodied relational phenomena.

Quantitative findings. Quantitative findings of the assimilative use of somatic awareness and somatic interventions regarding transference and countertransference is empirically confirmed by calculating responses to the survey question that asked respondents; in what ways somatic concepts are congruent with their psychodynamic perspective? Eighty-one percent of respondents considered somatic experience to be an “embodied form of unconscious communication and a somatic reenactment of traumatic experience.” Seventy-one percent of the respondents stated that they use somatic awareness and somatic interventions to work with their clients’ transference and countertransference responses. Again, a high number of respondents (n=142) confirmed that it was extremely relevant to somewhat relevant that their use of somatic concepts be congruent with their psychodynamic orientation.

Qualitative findings. The qualitative findings associated with content themes related to psychodynamic theory and practice is supported by the theoretical literature. Many respondents shared narrative content related to transference and countertransference and/or unconscious traumatic phenomena (for example, 337 units of analysis were related specifically to these psychodynamic concepts.) I include the following examples:

Containing countertransference with traumatized patients can be a challenge. The therapist’s use of somatic techniques with oneself can be greatly beneficial to support the capacity to think about unconscious communications. The first language is through somatic experience. Gaining awareness and the capacity to reflect upon somatic

experience is deeply insightful.

Another example:

I also think that somatic interventions are an incredibly useful way to recognize one's countertransference to the nonverbal aspects of what many traumatized clients bring to the treatment. Becoming aware of my own somatic countertransference has enabled me to be more attuned to my clients and to work more within the nonverbal realm.

Reporting on the extensive amount of qualitative data collected in regard to psychodynamic theory and practice and somatic concepts goes beyond the scope of this discussion.

Trauma-Specific Treatment and the Synthesis of Somatic Concepts

In a sense, the concept of trauma-specific treatment is an amalgam of several themes coded in the qualitative analysis that constitute this finding. The concept of *trauma-specific* is used to distinguish a treatment as specifically intended to treat trauma-related sequelae, and a treatment that addresses the common vulnerabilities associated with individuals who have been traumatized. An integration of quantitative and qualitative findings related to the concepts of *stabilization, establishing safety, phased-based approach, affect regulation, readiness, and, mind-body traumatic memory* reflect the major finding of a *trauma-specific* perspective related to the synthesis of psychodynamic practice with somatic concepts. This finding may be particularly relevant to psychodynamic practice because very little empirical literature supports a psychodynamic approach to the treatment of traumatized individuals (Drisko & Simmons, 2012).

Phased-Based Treatment for Trauma-Related Conditions

The finding that the “primary study cohort” conveyed clinical perspectives consistent with a three-phased treatment approach along with the synthesis of somatic concepts has been

extracted from an integrated analysis of the quantitative and qualitative results. To clarify, very few respondents explicitly described the concept of three phases of treatment. It may be that the focus on stabilization found in SE, TRM, SP, and other related models implicitly instills a three-phased concept for treatment. Psychodynamic practice and neurobiologically informed body-based models (SE, TRM, and SP) align with the rationale and purpose underpinning a phased-based framework for supporting individuals who have been traumatized through their treatment process (Allen, 2001; Basham, 2011; Cloitre et al., 2012; Courtois & Ford, 2009; Herman, 1992; Leitch & Miller-Karas, 2010, 2013; Levine, 1997, 2010; Ogden, Minton, & Pain, 2006). One respondent stated, “I use the three-phase model. If clients are only able to work on the first phase of stabilization it is beneficial. My training gives me clear guidelines for each phase of resolving trauma.” While n=117, (77%) of respondents selected using somatic awareness and somatic interventions as part of the stabilization phase of phased-based treatment and the qualitative findings support this aspect of understanding a phased-based approach, I speculate that this response is not indicative of a commonly held understanding among the primary study cohort of all three phases described in the literature.

Both orientations share aspects of a developmental perspective, recognizing the need for assessment of individual capacities before addressing traumatic memories. Neuroscience research confirms activation of areas of the brain known to store unprocessed traumatic memory that can trigger a traumatic response when a person recalls a traumatic experience (Kandel, 2006; Payne, Levine, & Crane-Godreau, 2015; Porges, 2011; Schore, A. N., 2003, 2012). Utilizing a phased framework organizes clear treatment goals for the client and clinician. The three phases of treatment are *stabilization*, *reconsolidation*, and *posttraumatic growth*.

Phase I: Stabilization. From a psychodynamic perspective, the three ways that respondents frequently indicated that they used somatic awareness and somatic interventions were 1) as an *ego supportive* intervention, 2) as a psycho-educational way of normalizing physiological responses to traumatic events and 3) as a way to recognize embodied forms of unconscious communication and traumatic reenactment. Recall that somatic awareness and somatic interventions are frequently used to respond to clients/patients experiencing moderate to severe trauma-related stress and as part of the initial stabilization phase of treatment. The qualitative themes *establishing safety* and *affect regulation*, which central concepts of ego psychology (for example, the ego function of regulation of affect and impulses) underscore the *assimilative integration* of the two approaches. One respondent stated, “ In this way clients have become more confident in their ability to deal with transference material as well as traumatic memories without the fear of being overwhelmed” and “ I guess you could say that body memory of implicit memory is something that emerges spontaneously when there is a sense of safety created through the therapeutic relationship.” Clients may return to the stabilization phase many times throughout their treatment.

Phase II: Reconsolidation. The second phase of treatment, the beginning of *reconsolidation*, is entered into when the client has developed the capacity to remain psychologically stable as they process the ways traumatic event(s) have influenced and possibly continue to influence their life. Respondents described many ways that the synthesis of somatic awareness and somatic interventions assist during the reconsolidation phase. The qualitative content theme of *integrated concepts* captured clinical ideas reflective of the synthesis of somatic awareness and somatic interventions associated with *reconsolidation*.

One respondent stated, “Somatic practices often allow therapists to experientially access and help clients transform those experiences in a way that is more difficult or impossible through talk therapy alone,” and another respondent expressed, “By using somatic awareness and interventions, both I and my client are able to listen in a deeper way and bring thoughts, feelings, sensations and images from the unconscious to the conscious.”

Phase III: Posttraumatic growth. The third phase, *posttraumatic growth*, involves the on-going process of reconsolidation with increased re-stabilizing when traumatic memories are reactivated during and between treatment sessions. In addition, the increased re-stabilizing is accompanied by indications of posttraumatic growth (Alberni, 2011). Sixty-nine percent (n=105) of respondents indicated they use somatic awareness and somatic interventions to facilitate reprocessing traumatic memory within a psychodynamic perspective. The somatic intervention skills *titration* and *pendulation*, were also indicated as “always” or “frequently” used. These skills directly support somatically reprocessing reactivated trauma-related sequelae (Leitch & Miller-Karas, 2010, 2013; Levine, 1997, 2010; Ogden, Minton & Pain, 2006). The qualitative themes of *relationship* and *empowerment* captured a sense of posttraumatic growth. In regard to the *relationship* theme, one respondent expressed, “I’ve watched people ‘bloom’ relationally doing this and it’s often an enjoyable and mastery-based therapy for them.” An example from the *empowerment* theme: “The patient was able to talk about an inner sense of safety, security, and capable of self-care based on bodily sensations.”

Concerns Related to Use of Somatic Concepts in Psychodynamic Treatment

Based on the fact that a minimal amount of empirical literature supports the use of neurobiologically based models, it is ethically warranted to understand clinicians’ concerns related to the assimilative use of somatic concepts adapted from SE, TRM, SP, and related

models. Respondents were asked to share any concerns they have related to the use of somatic concepts as part of a psychodynamic practice with individuals who have been traumatized. Several content themes warrant discussion as some findings that revealed potential concerns shape important areas of focus for research, education, and practice.

Trauma-Focused Treatment and Training

Several trauma-focused treatment concerns were raised in the qualitative findings. Initially, the content theme of *trauma-specific* was identified during the thematic analysis. I changed this heading to *trauma-specific* because it more accurately reflects the meaning of clinicians' concerns about the use of somatic awareness and somatic interventions. In addition, considering these concerns as trauma-focused concerns illuminates a better understanding of the concept of trauma-focused psychodynamic practice. I suggest that articulating a basic framework for trauma-focused psychodynamic therapy would help to address many concerns expressed by respondents. For example, concerns related to adequate training, clinician confidence, and clinical supervision in using an assimilative integrative approach could be more efficiently addressed by creating a shared model of the basic elements of trauma-focused psychodynamic treatment.

There are two most frequently coded content themes reported. First, the most frequently coded content theme was trauma-focused treatment. The predominant sub-themes are concerns about clinicians moving too quickly and increasing a client's dysregulation or causing *re-traumatization, regression, and/or dissociation*. One respondent stated, "In the absence of appropriate titration and careful monitoring, highly traumatized clients (especially dissociative clients) can be overwhelmed by somatic awareness and physical sensations." The sub-theme of concerns about working with dissociative phenomena was expressed frequently. One

respondent emphasized that, “It is important for traumatized individuals to avoid dissociation any more than necessary, so I try to track to be sure the client stays present in the room while tracking somatic experience related to trauma.” Some respondent’s use of the concept “window of tolerance” was noted in the qualitative data and in regard to concerns. “Window of tolerance” infers that each person has their own unique parameters for when they become too dysregulated to effectively utilize treatment and that clinicians can work with clients to establish an awareness for when they are moving out of their “window of tolerance” in the session.

The second most frequently identified theme is concerns related to adequate training. Concerns were expressed about all aspects of training, including “the lack of recognized evidence base for the effectiveness of a somatic experiencing approach to reprocessing trauma that is also an issue in terms of adhering to recognized best practices.” Another area brought up was the issue of touch, and the historical and ethical aspects related to psychodynamic practice. Some respondents focused on a deficit in training that related to psychodynamic practice for master level education, and the need for clinicians, once they enter the field, to learn basic somatic skills to be prepared to help stabilize and support clients who have been traumatized.

Notable Difference between Cohorts

Statistical analysis between the “primary study cohort” and the “exclusion study cohort” revealed a notable difference related to percentages of clinicians whose clients were diagnosed with PTSD. This statistically significant difference between the *primary study cohort* and the *exclusion study cohort*, pertaining to the percentage of clients with PTSD ($\chi^2=24.044$, $df=5$, $p<.000$) shows that the primary study cohort caseloads have a greater number

of clients who have been diagnosed with PTSD. Though the *exclusion study cohort* also consisted of psychodynamically oriented clinicians, this cohort did not indicate having studied or completed training in SE, TRM, SP, or a similar model. The *excluded study cohort* was asked one open-ended question “*Please describe your clinical orientation, and why, when, and how you utilize neurobiologically informed interventions in your treatment approach with traumatized individuals.*” and 37 out of 56 answered the open question. Though the *excluded study cohort* was not using a specific somatic model, they did indicate use of similar somatic concepts.

Further qualitative analysis of the *excluded study cohort* indicated that this cohort primarily uses neurobiologically informed interventions for psycho-educational purposes, or as suggested adjuncts to their client’s treatment. One respondent stated, “I advise patients to seek other body-based modalities such as mindfulness, but I do not use as part of my repertoire” and another thematic response was, “I provide handouts on breathing techniques and how this helps regulate the threat system.” An initial speculation for this difference was that different practice settings (i.e. private practice, agency, hospital, etc.) could be a correlating variable related to higher percentages of clients with PTSD between practice settings. Additional statistical analysis determined that no statistical differences were found related to practice setting (private practice or agency) that account for this higher percentage of clients with PTSD.

One hypothesis about why the “primary study cohort” has a significantly higher percentage of clients with PTSD than the “exclusion cohort” may be that, by learning, practicing, and assimilating somatic awareness and somatic interventions, the “primary study cohort” has developed more expertise working with individuals who have been traumatized. Another consideration for this differences between study cohorts may be that

psychodynamically oriented clinicians that use somatic concepts adapted from Somatic Experiencing (SE), Trauma Resiliency Model (TRM), Sensorimotor Psychotherapy (SP), and/or similar models are more likely to advertise or be known in their communities as having an expertise in the treatment of posttraumatic stress disorder.

Lastly, another finding that may relate to this difference between study cohorts is that the quantitative data revealed that clinician use of somatic awareness and somatic skills may have a “protective mechanism” from the transmission of vicarious traumatization. When clinicians are self-regulating and co-regulating with the client during a treatment session, a client engaged in reprocessing traumatic memory is able to contain the experience. Some clinicians refer to this as staying in the “window of tolerance;” this allows the process to slow down, thereby decreasing the potential for re-traumatization and the potential for subsequent vicarious traumatization.

EMDR as a Somatic Relational Model

Respondents were asked to select from three specific models (SE, TRM, and SP) to determine which somatic body-based model they were trained to use. The option of writing in a related somatic body-based method they were trained in revealed a serendipitous finding. Several respondents indicated that are using Eye Movement Desensitization and Reprocessing (EMDR) from a neurobiological perspective. As noted in the literature review, EMDR research and theoretical literature offers support for the synthesis of somatic awareness and somatic interventions consistent with SE, TRM, and SP in the treatment of psychological trauma (Drozd, Harper, & Rasolkhani-Kalhorn, 2009; Pagani et al., 2012). Along with the neurobiological link that has evolved as an aspect of EMDR treatment, a strong psychodynamic aspect has also evolved in assimilative integration of EMDR (Dworkin, 2005;

Ringel, 2014). Importantly, Shapiro (2009) acknowledges that the somatic focus of EMDR may be a relevant factor in positive treatment outcomes. EMDR is considered an empirically based treatment that integrates neurobiological concepts for individuals who have been traumatized. Logically, psychodynamic research could borrow aspects of the successful research methodology used to demonstrate the efficacy of EMDR, and apply it to research on *assimilative integration* of a neurobiologically informed psychodynamic treatment model.

Assimilative Integration

Quantitative and qualitative data revealed the finding that clinicians are synthesizing neurobiological concepts with psychodynamic perspectives in a way that is consistent with *assimilative integration*. To reiterate, *assimilative integration* is demonstrated in this study by clinicians who maintain a psychodynamic orientation while synthesizing somatic concepts in their practice with individuals who have been traumatized. This finding provides an important conceptual point of reference to better understand the complexity of this clinical practice phenomenon. Castonguay et al (2015) emphasize, “for clinicians, an assimilative approach allows for an expansion of clinical repertoire without shaking the foundation of their most typical way of practicing” (p. 369). Researchers who study the specific ways that clinicians integrate treatment concepts or interventions from different theoretical model(s) use the term *integration* in a general sense.

The detailed processes related to why, when, and how clinicians apply *integration*, determine the type of *integration* they are using (Norcross & Halgin, 2005; Norcross & Newman, 1992). For clarification, the term *integration* regarding theoretical approaches “commonly denotes the conceptual synthesis of diverse theoretical systems” (Beitman, Goldfried, & Norcross, 1989, p. 139). Castonguay et al. (2015) distinguish the meaning

between *theoretical integration* and *assimilative integration* delineating that, “*Theoretical integration* involves the integration of theories and techniques of two or more psychotherapies into a new conceptualization of change or treatment approach” and “*assimilative integration*, involves remaining anchored in a primary theoretical orientation while thoughtfully integrating techniques and principles from other orientations” (p. 366). The concept of *assimilative integration* is used throughout this discussion chapter because this research project specifically focused on clinicians who practice from a psychodynamic orientation and are integrating somatic concepts from other approaches. Though the underpinnings of *assimilative integration* of theoretical psychodynamic concepts, neurobiological concepts, and trauma-specific ideas are reflected in the clinical processes described among the *primary study cohort*, this finding raises awareness of the need for more clarity among psychodynamic clinicians about *assimilative integration*.

While the empirical and theoretical literature are reflective of the concept of *assimilative integration*, more explicit articulation of *assimilative integration* would benefit our understanding the phenomenon of somatic awareness and somatic interventions being assimilated with psychodynamic theory and practice. In the instance of the theoretical article co-authored by Wöller et al. (2012), the researchers propose a clinical study of a brief trauma-specific psychodynamic treatment that would synthesize neurobiologically informed interventions. These researchers detail a series of interventions consistent with treatment concepts and interventions found in Somatic Experiencing (SE), Trauma Resiliency Model (TRM), and Sensorimotor Psychotherapy (SP). However, the researchers do not reference any specific somatically based model or acknowledge any contributing sources. Hays’ (2014) study, the only study specific to the study issue of *assimilative integration* of somatic

neurobiologically informed concepts with psychodynamic practice, also relied primarily on interdisciplinary literatures to support her study. Participants in Hays' (2014) qualitative study did indicate ways that Somatic Experiencing (SE) was synthesized with their psychodynamic orientation. Hopefully, continuing to link relevant empirical and theoretical literature that elucidates the occurrence of *assimilative integration* will lead to greater cohesion and cross-pollination of ideas among clinicians and researchers in this area of study.

Somatically Informed Psychodynamic Relational Approach and Treatment Trends

The finding that psychodynamically oriented clinicians are assimilating neurobiologically informed ideas in their practice approach with individuals who suffer from trauma-related sequelae is indicative of contemporary treatment trends in a way that is consistent with the concept of *assimilative integration*. Specifically, the *assimilative integration* of neurobiologically informed practice and research knowledge is predicted to increase and positively affect the efficacy of psychotherapy (Levy, Ablon, & Kächele, 2012; Norcross, Pfund, & Prochaska, 2013; Norcross & Rogan, 2013). The empirical and theoretical literature supports the importance of neuroscience in psychodynamic clinical research and practice (Anderson, 2008; Aposhyan, 2004; Committee on the Assessment of Ongoing Effects in the Treatment of Posttraumatic Stress Disorder, & Institute of Medicine, 2014; Courtois & Ford, 2009; Kandel, 2006; Leitch & Miller-Karas, 2007; Levine, 1977, 1997, 2010; Levine & Crane-Godreau, 2015; Ogden, 2006; Porges, 2011; Rothschild, 2000; Scaer, 2001; Schore, A. N., 2003; Schore, J. R., 2012; Siegel & Solomon, 2003; Stern, 1985; van der Kolk, 2014, Payne, Kolk, Pelcovitz, Roth, Mandel, McFarlane, & Herman, 1996). This may be an important finding for leveraging a more secure future and advancement of psychodynamic practice alongside the empirical support of neuroscience.

Correcting misperceptions about psychodynamic theory and practice. While empirical literature demonstrates that psychodynamic psychotherapy is a well-established evidence-based practice, a distorted and antiquated understanding remains a barrier to more wide-range use of psychodynamically informed treatment models specific to trauma-related disorders (Drisko & Simmons, 2012; Foa, Keane, Friedman, & Cohen, 2009; Shedler, 2010; Weine, Danieli, Silove, Van Ommeren, Fairbank, & Saul, 2002). For example, Foa, Keane, Friedman & Cohen (2009) include a brief description of psychodynamic treatment of trauma as an evidence-based practice in which the authors state an antiquated understanding that lacks contemporary advances in theory and practice. This is exemplified by the authors describing the treatment goals of psychodynamic practice as being aimed at bringing unconscious repressed memories of trauma to consciousness for abreaction and catharsis, *a method that no longer characterizes contemporary psychodynamic practice.*

Strengthening research and practice. The fact that psychodynamically oriented clinicians are assimilating neurobiologically informed somatic treatment concepts into their approach with individuals who have been traumatized is informative for research and practice. Psychodynamic clinicians and researchers can leverage the preponderance of theoretical and neuroscientific evidence to support empirical studies of psychodynamic treatment approaches. Some research documents positive neurobiological changes as a result of psychodynamic treatment (Roffman, Gerber, & Glick (2012). One study, using electroencephalographic (EEG) neurofeedback intervention, confirmed positive brain changes with participants diagnosed with PTSD (Kluetsch et al., 2014). These researchers utilize an intervention that supports a similar neurophysiological state as *resourcing* and *grounding* interventions. Designing interdisciplinary outcome studies that confirm positive neurobiological changes as a result of

assimilative integration of psychodynamic treatment with neurobiological concepts will strengthen the empirical base for trauma-specific psychodynamic practice.

Limitations of the Study

Several limitations to the study warrant mentioning. The Albert Einstein quote, “If we knew what it was we were doing, it would not be called research, would it?” has entered my mind several times during this course of this study. As exploratory research, I set out to narrow the focus of body-based somatic models to three specific models (SE, TRM, and SP). This limitation was quickly revealed in the data as indicated by the high response rate to selection option of “other” by N=53 respondents included in the primary study cohort. Respondents who selected “other” indicated that they were using a similar somatic model to SE, TRM, and SP, and were considered as having met the inclusion criteria for the *primary study cohort*. While including these N=53 respondents led to the serendipitous finding that EMDR is thought by many psychodynamic clinicians to be more body-based than I previously thought, the inclusion of these data may have created a risk to the validity of the findings. Efforts were made to mitigate the risk through the integration of the quantitative and qualitative data findings, whereby determining that several clinicians indicated being trained in one or more of the three selected models and also included EMDR in the “other” option.

Another limitation of the study is related to keeping the length of the on-line survey to a maximum of 10-15 minutes and not being able to include important variables related to the concept of culturally informed practice. The literature supports that both psychodynamic practice and somatic models are culturally informed. At the same time, cultural nuances exist related to the expression of bodily sensations and the cultural beliefs related to the body in response to traumatic event(s). I chose to not include a question that would investigate

clinicians' perspectives regarding culture and the treatment of trauma-related conditions and consider this omission a limitation of the study. In addition, my own bias and experience of somatic awareness surely influenced aspects of the survey instrument and interpretation of the data.

Non-probability sampling. Non-probability sampling poses the overarching limitation of being able to generalize and make inferences about the findings. The sample was not randomized, and some of the professional groups sought for participation in the study would by virtue of their affiliation bring a bias in favor of the use of somatic concepts. Conversely, when I sent the email to listservs that were not affiliated with an analytical or psychodynamic orientation, several possible participants were excluded from taking the survey based on identifying other theoretical orientations or non-clinical professions, e.g., cognitive behavioral clinicians, massage therapists, nurses, and lay professionals.

Limitation to the qualitative data. An additional limitation exists in the qualitative data. A lower percentage of the "primary study group" 113 (74.3%) responded to the open-ended questions. As a non-probability sample population, those respondents that answered the open-ended questions may not fully represent the views of all the participants. Also, it is unlikely that qualitative survey data is going to capture in-depth narrative data. I opted to keep the survey brief to increase the likelihood of reaching a large enough study population to achieve a statistically significant number of participants to reduce survey bias within a non-probability sample. In doing so, the potential of introducing bias within the "primary study cohort" may have increased.

Omitting a key concept in the survey terminology. In hindsight, not including the concept of a phased-based approach in the terminology may have created a methodological

limitation. I consider this omission an oversight in several ways. Phased-based treatment for individuals who have been traumatized is a key concept in the formulation of this research. The survey instrument collected quantitative data and qualitative data implicitly revealed that many respondents use a *assimilative integration* approach that addresses all three trauma-specific phases of treatment. I believe that a clear understanding, for both the clinician and the client, about trauma-specific phases of treatment is essential. Had this concept been made explicit, not only would additional valuable data possibly have been garnered, but an opportunity to raise awareness among psychodynamically oriented clinicians about this trauma-specific concept would not have been missed.

Implications for Future Research

The synthesis of somatic concepts adapted from SE, TRM, SP, and similar body-based models with psychodynamically informed treatment of individuals who have been traumatized is an understudied phenomenon. For this reason, the implications for future clinical social work research are numerous. First, I collected an extensive amount of quantitative and qualitative data that has great potential for additional future analysis that was out of the scope of this research project. Empirical studies, specifically at the level of randomized clinical trials (RCTS), to demonstrate the efficacy of psychodynamic treatment for PTSD and other trauma-related disorders will be required to secure psychodynamically informed treatments as an evidence-based practice. Research that operationalizes neurobiological somatic interventions from a psychodynamic understanding has the potential to link treatment variables and strengthen the research and practice of psychodynamic approaches. Research that builds on *common factors* meta-analysis that are correlated with positive treatment outcomes would help to demystify and dispel common misconceptions about contemporary psychodynamic theory

and practice, and serve to further our understanding of the synthesis of a somatically informed overlay with psychodynamic practice.

Future research that bridges psychodynamic practice and somatic concepts is needed to strengthen the empirical support for research that explicitly examines *assimilative integration* of psychodynamically informed treatment of individuals who have been traumatized. The distractions of clinical orientation turf wars are essentially impediments to developing better and more broad-spectrum treatments for individuals who have been traumatized. Research that cross-walks psychodynamic theoretically grounded interventions, including somatic awareness and somatic interventions, into distinct phases of treatment activities would allow for similar research that supports evidence-based treatments like trauma-informed cognitive behavioral therapy (CBT) and exposure CBT. Our current research paradigm continues to privilege randomized clinical trials (RCT) that study trauma-informed cognitive-behavioral treatment (TICBT) approaches, yet these treatments lack adequate outcome research and cross-population applicability (Committee on the Assessment of Ongoing Effects in the Treatment of Posttraumatic Stress Disorder, & Institute of Medicine, 2014).

Implications for Clinical Social Work Practice

This research has important implications for psychodynamic clinical social work practice with individuals who have been traumatized. Epidemiological data on population prevalence rates of trauma-related conditions reinforce the reality confirmed by this research that clinicians in both study cohorts have fifty percent or more clients in their practice seeking help for trauma-related conditions. An overarching implication for psychodynamically oriented practice is the need to explicitly operationalize trauma-focused interventions and include the overlay of phased-based treatment that is grounded in psychodynamic concepts.

The *assimilative integration* perspective utilized throughout this discussion supports the need, if not the imperative, to revise key psychodynamic concepts for clinical practice with individuals who have been traumatized.

An additional implication for practice is the need for advanced training and supervision on issues such as phased-based treatment, understanding different types of trauma, recognizing and working with dissociative phenomena, refining psychodynamic practice concepts to be trauma-focused, and revising psychodynamic concepts to include a neurobiological understanding of all aspects of treatment. Although this study specifically explored individual treatment for trauma-related conditions and the uses of somatic awareness and somatic interventions, *assimilative integration* of all these neurobiological concepts can be applied to couple, family, group, and community modalities as well. Finally, this research highlights the enormous contribution of practice-based evidence (PBE) for *assimilative integration* in a psychodynamic approach that utilizes contemporary interpersonal neurobiology.

Implications for Education

The implications for clinical social work education underscored by the research focus on the primary areas of basic clinical education and training, trauma-informed and trauma-specific practice, and the neurobiologically informed use of somatic body-based theoretically integrated practice. While heuristic experience and practice-based evidence may be shared among colleagues, many respondents expressed a need for more formal education to feel confident in using somatic awareness and somatic interventions in their psychodynamic practice with individuals who have been traumatized. In addition, a greater educational focus on self-protection and self-care is crucial related to the risks associated with vicarious traumatization.

Conclusion

The results of this mixed-methods study confirm that a statistically significant number of psychodynamically educated clinicians are synthesizing neurobiological somatic concepts into their treatment approach with individuals who have been traumatized. The survey instrument developed for this study incorporated preliminary qualitative interviews that informed the quantitative and qualitative questions to most succinctly explore why, when, and how clinicians are assimilating somatic awareness and somatic interventions. By examining this clinical decision-making process, we now understand that the concept of *assimilative integration*, whereby psychodynamic clinicians maintain their psychodynamic orientation while synthesizing neurobiologically informed somatic concepts, is an accurate concept for this process. Psychodynamic relational theories were found to be a cohesive way to articulate the synthesis of these somatic concepts both theoretically and in practice.

I make the argument that a preponderance of practice-based evidence and interdisciplinary neuroscientific research exist that supports the assimilative use of somatic awareness and somatic interventions. From a psychodynamic relational perspective, substantial theoretical literature supports expanding central theoretical concepts to include body-based somatic communication as part of client engagement, client assessment and all phases of treatment. Continuing with this argument, a preponderance of theoretical evidence also exists that adequately establishes Somatic Experiencing, Trauma Resiliency Model, Sensorimotor Psychotherapy, and similar body-based models as promising practices worthy of empirical research to explore their use as an evidence-based practice. While some psychodynamically educated clinicians may learn one or more of these models and use them as

a stand-alone treatment, I hypothesize that the majority of clinicians heuristically expand their psychodynamic practice through *assimilative integration*. Of equal importance, is to pursue empirical research that demonstrates and operationalizes the assimilative integration process of psychodynamic synthesis of somatic concepts as a trauma-focused treatment approach.

In closing, a primary objective of this study was to conduct research that equally values practice-based evidence and evidence-based practice in understanding a phenomenon that expands key theory and practice concepts of a psychodynamic trauma-focused treatment. This objective places me as a researcher somewhere between and between paradigms. Kuhn (1962) suggests that, “like artists, creative scientists must occasionally be able to live in a world out of joint—‘the essential tension’ implicit in scientific research” (p.79). To some degree, the “primary study cohort” is practicing in this out of joint world of dichotomized paradigms where the needs of their clients who have been traumatized may require more than what traditional psychodynamic practice offers. Traumatizing event(s) occur within a relational context. Each individual who experiences a traumatic event(s) is uniquely affected, and therefore must be offered a treatment that matches with their unique treatment needs. Epistemological debates will need to be set aside in order to address the global population health crisis resulting from the undeniable reality of the increasing prevalence of traumatic event(s) and the devastating impact to human life. This study confirms that heuristically developed knowledge about the assimilative integration of somatic awareness and somatic interventions with psychodynamic practice is an important emerging treatment for individuals who have been traumatized. Clinical social work practice reflects a legacy of valuing relationships, the unique as well as universal needs of individuals, and sharing clinical knowledge to advance and improve all facets of social work practice. The results of this study

can be considered to advance all aspects of social work services.

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Appendix A

Taxonomy of Psychological Trauma Compiled from Various Sources

<p>Posttraumatic Stress Disorder (PTSD), May also be referred to as Simple Trauma</p>	<p>Based on diagnostic criteria detailed in the past three editions of the DSM. DSM-5 moved PTSD to a separate chapter titled Trauma- and Stressor-Related Disorders. Essential feature is the development of characteristic symptoms following exposure to one or more traumatic events. (American Psychiatric Association, 2013)</p>
<p>Complex Trauma, May also be categorized as complex post- traumatic stress syndrome and classified as DESSOS—disorder of extreme stress not otherwise specified in the DSM-IV and DSM-5</p>	<p>“A coherent formulation of the consequences of prolonged or repeated traumatic experiences. Not recognized as a diagnosis in the DSM-5 or earlier editions, although the section, Risk and Prognostic Factors, contains features analogous to consequences of prolonged or repeated traumatic experience” (Courtois & Ford, 2009)</p>
<p>Early Relational Trauma</p>	<p>Based on potential neurobiological vulnerabilities in infant brain development due to deficits in early care-giving environments that may directly connect to “traumatic attachment, inefficient right brain regulatory functions, and both maladaptive infant and adult mental health.” (Schoore, 2001, p. 201)</p>
<p>Trauma with Dissociation</p>	<p>DSM-5 Dissociative subtype – individual experiences persistent or recurrent symptoms of either depersonalization or derealization (American Psychiatric Association, 2013).</p> <p>“an experienced loss of information or control over mental processes that, under normal circumstances, are available to conscious awareness, self-attribution, or control, in relation to the individual’s age and cognitive development” (Cardina & Carlson, 2011, p.251).</p> <p>“Dissociation involves the key features of detachment and compartmentalization, operating on a continuum from mild to severe processes” (Basham, 2011, p.458).</p>

Attachment-Related Trauma	Resulting from abuse during infancy “known to be associated with both disorganized attachment and dissociative disorders. This connection between abuse and later dissociation may be accounted for partially by the development of a sensitized neurobiology when a child experiences frightening events from which escape is not possible.” (Albus, Dozier & Stovall-McClough, 2008, p. 736)
Vicarious Trauma	“Considered to effect the therapist’s sense of self, other, and perception of the world’ (Rasmussen, 2005, p.20). And described as, “the transformation of the inner experience of the therapist that comes about as the result of empathic engagement with clients’ traumatic material.” (Pearlman & Saakvitne, 1995, p. 31)
Psychic Trauma	An analytic concept that “psychic trauma can occur on an acute or slowly evolving basis. Two types of psychic trauma exist—“shock trauma” and “strain trauma,” also referred to as “cumulative trauma” (Akhtar, 2009,p p. 228-229).
Intergenerational Trauma, May also be referred to as Historical Trauma	Trauma that occurs from “intergenerational transmission of legacies of trauma for survivors of the genocide of Native Americans, the Holocaust, and the Vietnam War.” (Basham, 2011 p. 442)
Cultural Trauma	“The culturally defined and interpreted shock to the cultural tissue of a society” (Sztompka, 2000, p. 449). “The event does not have to be in the past, it can be underway” (Stamm, Stamm IV, Hundall, & Higson-Smith, 2003, p. 94).

Appendix B

Clarification of Terms and Definitions

Terms and definitions found in the literature vary in meaning both within the discipline of psychology and in pertinent interdisciplinary contributions. The specific terms of “Psychodynamic,” “somatic,” “sensation” “psychological trauma” and the compound term “neuro” are terms requiring clarification.

Psychodynamic. Shedler (2006) asserts, “The term psychodynamic was introduced after World War II at a conference on medical education [1953] and used as a synonym for psychoanalytic” (p.9). For the purposes of this study, the term psychodynamic will be used unless a direct quote contains the term psychoanalytic. The term psychodynamic psychotherapist will be used interchangeably with psychodynamically informed clinician.

Somatic. In plain language, somatic is defined as “of or relating to the body, esp. as distinct from the mind” (Oxford Dictionary, American edition, p. 760). In clinical social work and general psychology the term somatic in conjunction with trauma is used descriptively for diagnostic purposes. The term somatic may be used somewhat differently in psychology, neuroscience, physical medicine, and somatically based models for treating traumatic symptomatology. For the purpose of this study, the term somatic encompasses internal and external bodily sensations.

Sensation. The term *sensation* is defined as “feeling in one’s body detected by the senses” (Oxford Dictionary, American edition, p.725). For the purposes of this research, the term sensation is broadened to encompass sensory awareness related to sight, smell, sound, taste, temperature, and any sensory felt sense that communicates a person’s sensory awareness (Leitch & Miller-Karas, 2014). Ogden (2000) clarified sensations to mean “bodily feelings are of a distinctly physical character, such as clamminess, tightness, numbness, and electric,

tingling, and vibrating sensations” (p.162).

Neuro. Neuro- means nerve or nerves. In the literature, neuro- is always combined to clarify a specific meaning, as in neurology—the study of the nervous system. The term neuroscience and neurobiology are used interchangeably in the literature.

Neuropsychanalysis is a term that bridges neurobiology and psychoanalysis. It refers to ways that psychodynamic clinicians integrate neurobiology into practice.

Nersessian and Solms (1999) introduced a journal focused on this interdisciplinary field, stating, “The goal of this new journal is to create an ongoing dialogue with the aim of reconciling psychoanalytic and neuroscientific perspectives on the mind” (p.3). The term neurobiology will be used in this study.

Appendix C

Additional Explanation of Trauma Concepts

DSM-5 Posttraumatic Stress Disorder (PTSD)

The Diagnostic and Statistical Manual of Mental Illness Fifth Edition DSM-5 (APA, 2013) criteria for PTSD is one description of trauma selected to encompass the meaning of psychological trauma for this proposed research. An important reason to include this DSM-5 section on PTSD is the high utilization of the DSM among clinicians, medical providers, and allied health providers. Clinicians of all orientations are required by insurance companies and treatment funding entities to use the DSM coding system, implying that the DSM diagnostic criteria for PTSD is known to most clinicians. A noteworthy change made in the DSM-5 is the removal of PTSD and Trauma-related Disorders from the anxiety disorders chapter to a chapter dedicated to psychological trauma. The relevance of this change underscores the influence of neuroscientific studies that demonstrate that PTSD and other trauma-related disorders are “conceptually and clinically distinct from other anxiety disorders” (Kupfer & Regier, 2011, p.1). Hopefully, this change will result in clinicians developing a more accurate understanding of PTSD and trauma-related disorders, and the need to offer appropriately matched treatment options.

Physiologic Symptomatology

For the purpose of connecting the study issue of the synthesis of psychodynamic psychotherapy and somatic awareness interventions, the following sections of the DSM-5 PTSD criteria have been selected to further elucidate the intrinsic relationship between the psychological and physiological symptomatology of PTSD. The DSM-5 PTSD criteria are organized in four distinct diagnostic clusters -- intrusions, avoidance, negative alterations in cognitions and mood (cluster was added to DSM-5), and hyperarousal (Dalenberg & Carlson,

2012). While vast combinations of symptoms within these diagnostic clusters can be identified among individuals (Gala, Olbert & Tupler, 2014), psychological and physiological internal interactions between the clusters can confound assessment, and treatment matching. More detailed information on the physiological symptoms can be found in sections B.5 and E. in the DSM-5 (APA, 2013c p.271)

Dissociative subtype

The addition of the PTSD Dissociative Subtype in the DSM-5 warrants inclusion in this section because of the prevalence of the ego defense of dissociation in response to traumatic event(s). Many clinicians may feel ill equipped to recognize the symptom of dissociation, and to know how to intervene with a patient who dissociates in response to traumatic memory. Somatic awareness and somatic interventions may be a useful intervention in the treatment of dissociation (Minton, Pain, & Ogden, 2006). The ego defense of dissociation is well established in psychodynamic theory and can be a complicated symptom for patients and clinicians to recognize and understand. By assessing for the dissociative subtype, clinicians can consider how they will address dissociative symptoms in treatment planning. Through the lens of ego psychology, one psychodynamic theory and practice approach, the ego defense of dissociation is understood as an immature defense requiring ego supportive therapeutic intervention (Schamess & Shilkret 2010; Goldstein, 1984, 1995).

In summary, the DSM-5 PTSD diagnostic criteria represent the most well-known description of psychological trauma among clinicians across disciplines, and the DSM-5 is a required coding system for treatment eligibility and coverage. The symptom cluster combinations possibilities for diagnosing PTSD based on the DSM-5 PTSD criteria are numerous. Individuals can meet the PTSD criteria, yet have no common symptoms. The newly

created chapter for PTSD and trauma-related disorders along with the new designation of a dissociative subtype help to bridge the DSM perspective on psychological trauma with a psychodynamic orientation. While the DSM-5 provides a useful and often required categorization of PTSD and trauma-related disorders, it lacks a developmental perspective inherent to psychodynamic theory and practice.

Complex Posttraumatic Stress Disorder

Complex PTSD is understood as developing in response to more than a single traumatic event. Conceptualizing complex PTSD expands our comprehension of psychological trauma beyond the diagnostic criteria detailed in the DSM-5 in several ways that require different diagnostic, treatment, and research considerations. The participants of this research are psychodynamically informed clinicians who utilize somatic awareness and somatic interventions in their treatment of individuals who have been traumatized. Understanding Complex PTSD involves a developmental stance particularly well supported from a psychodynamic orientation. Kessler (2000) found that most individuals report multiple traumatic experiences, rather than a single event. Extrapolating that single-event trauma is more of an exception in human experience, then the construct of complex PTSD is more diagnostically representative than PTSD in the DSM.

Clinical researcher's define complex PTSD to include the criteria of PTSD in the DSM and five domains related to difficulty in self-regulation: (a) emotion regulation difficulties, (b) disturbances in relational capacities, (c) alterations in attention and consciousness (e.g. dissociation), (d) adversely affected belief systems, and (e) somatic distress or disorganization (Alexander et al., 2011, p.4). The emphasis on difficulties in self-regulation as a feature of complex PTSD corresponds to the need for a phased or staged approach to treatment where

stabilization and safety are the initial focus of treatment (Herman, 1992; Chu, 2011; Courtois & Ford, 2009).

Psychodynamic Perspective and Complex PTSD

In terms of understanding psychological trauma from a psychodynamic perspective, complex PTSD requires a developmental stance on assessment, diagnosis, and treatment. A psychodynamic biopsychosocial-spiritual assessment is necessary for determining the multi-facets of complex PTSD (Berzoff, 2011; Courtois & Ford, 2013). Complex PTSD takes into account the cumulative effects of traumatic experiences beginning in early childhood and encompassing an individual's lifespan (Chu, 2011; Courtois & Ford, 2009; Herman, 1992, 1997). Generally, an individual diagnosed with complex PTSD has a history of traumatic experience beginning in childhood (Brandon, Davis & Lawson, 2013). Alexander et al. (2011a) developed diagnostic criteria for complex PTSD to aid in the development of best practice guidelines for the treatment of complex PTSD. The inclusion of complex PTSD in the International Society for Traumatic Stress Studies (ISTSS) practice guidelines is reflective of greater acceptance of the diagnosis and of the ways complex PTSD differ's from PTSD.

Treatment and research challenges associated with Complex PTSD

Providing treatment, and conducting clinical outcomes research with individuals diagnosed with Complex PTSD can be challenging. Meeting the research standards for EBP is particularly challenging in the field of traumatology. Cornelis et al. (2010) confirm many "challenges common to trauma research, including control group trauma exposure, comorbidity in both case and control groups, influences on likelihood of exposure to trauma, time since index trauma, and number/type/timing of trauma(s) experienced " (p. 319).

An understanding of Complex PTSD is pertinent to this proposed study because it

encompasses a developmental perspective utilized by psychodynamic clinicians and the importance of a biopsychosocial assessment regarding development. Disturbances in self-regulation are the main area of expanded criteria from the DSM PTSD for the criteria for diagnosing complex PTSD. A phased or staged treatment approach, beginning with stabilization and safety, is recommended by experts in the diagnosis and treatment of complex PTSD. Symptomatically, difficulties with self-regulation can be interpreted as similar symptomatology as borderline personality disorder, or other personality disorders characterized by challenges to immature defense self-management. Psycho-education about trauma is a central feature of treatment for complex PTSD.

Early Relational Trauma

An understanding of early relational trauma is relevant to this exploration of why, when and how psychodynamic clinicians synthesize somatic awareness and somatic interventions because of the many developmental links established between neurobiological and psychodynamic concepts on psychological development. The potential cascading neuropsychological effects of early relational trauma may be a motivating reason that psychodynamic clinicians choose to utilize somatic awareness and somatic interventions in their treatment modality (Schore, 2012, 2001, 2003). To adequately assess the therapeutic needs of individuals who have been traumatized, having a basic understanding of the potential neurobiological consequences of early relational trauma is useful to clinicians. Advances in neuroscience research validate the harmful impact of early relational trauma on brain development, infant mental health, and potential developmental consequences throughout adult life (Porges, 2011; Schore, 2012, 2001, 2003; Soloman & Siegel, 2003). Psychodynamic theories explain normal and abnormal development of an individuals' psychic

structure beginning with an assessment of early childhood caregiver relationships, and their biopsychosocial-spiritual environment (Berzoff, Flanagan, & Hertz, 2011; Schore, 2001). Although early relational trauma is pertinent in the conceptual scaffolding of trauma for this proposed study, an in-depth review of relevant medical and epidemiological studies are beyond the scope of this investigation. One landmark study, the Adverse Childhood Experiences (ACE) study, has been credited for linking adverse childhood experiences with several life-threatening health conditions in adulthood (Felitti, 1998). Ande et al. (2006) connected “a variety of changes in brain structure and function and stress-responsive neurobiological systems” to childhood abuse and neglect (p.1). Fortunately, neuroscientists’ findings have substantiated that the adult brain has the capacity for “neuroplasticity” and “neurogenesis,” two ways that the brain heals from neurobiological deficits caused by early relational trauma (Kays, Hurley & Taber, 2012. P.121).

In summary, early relational trauma can negatively impact normal infant brain development. Research supports that there are serious and life-threatening consequences related to early relational trauma in adulthood including the symptomatology of PTSD and complex PTSD. Lastly, the fact that the brain can heal from early relational trauma is important to keep in mind when working with individuals who have been traumatized

Appendix D

Preliminary Qualitative Interview Questions for Survey Development Purposes

- 1) Why did you choose to become trained in Somatic Experiencing, Trauma Resiliency Model®, or Sensorimotor® Psychotherapy?
- 2) If you have used the somatic treatment skills/interventions in your treatment practice, describe why, how, and when you chose to use the skills.
- 3) Do you consider yourself a psychodynamic psychotherapist or psychodynamically informed clinical social worker? (This question was asked in the preliminary interviews for the purpose of understanding the ways clinicians consider themselves to be psychodynamic. This information was used in part to develop a practical term for use in the survey instrument.)
- 4) If yes, in what ways do you relate or connect the somatic skills to your psychodynamic perspective?
- 5) In what ways, if any, do you think neuroscience or neurobiological knowledge and research is important to your clinical practice?
- 6) What has been your anecdotal observation of the efficacy or usefulness to your psychodynamic orientation and treatment by integrating or synthesizing somatic intervention skills?
- 7) What other thoughts, impressions or ideas would you like to share about your training, practice and/or experience related to this use of somatic awareness and somatic interventions?

Appendix E

Survey Instrument

Thank You for your time

- Thank you for your willingness to participate in this study. While clinician's from many different orientations may be advancing their clinical approach by integrating somatic body-based interventions, this study focuses specifically on psychodynamically oriented clinicians. As a result of your answer to the question on the welcome page indicating that your clinical orientation **is not** primarily psychodynamic, psychodynamically informed, or psychoanalytic, you do not meet the inclusion criteria to continue with this research survey. Thank you again for your time!

Consent to Participate in a Research Study

- **Consent to Participate in a Research Study**
Smith College School for Social Work • Northampton, MA

.....
Title of Study: Clinicians' Use of Somatic Awareness Intervention in the Treatment of Trauma-Related Disorders

Investigator(s): Mary P Curry, MSW, LCSW, Doctoral Candidate, School for Social Work

.....
Introduction

You are being asked to participate in a research study on "Clinicians' Use of Somatic Intervention in the Treatment of Trauma-Related Disorders". You were selected as a possible participant because of your affiliation with professional groups known to include psychodynamically informed clinicians who may be using somatic awareness and somatic interventions in their treatment of traumatized individuals. Please read this form and ask any questions that you may have before agreeing to be part of this study.

Purpose of Study

The primary purpose of this study is to have psychodynamically informed clinicians, such as you, contribute clinical knowledge and practice experience related to the utilization of somatic awareness and somatic interventions.

The study will address the following research questions:

1) Are psychodynamically informed clinicians utilizing somatic awareness and somatic interventions adapted from three somatic models (Somatic Experiencing®, Trauma Resiliency Model®, and Sensorimotor Approach®) in their treatment with traumatized individuals?

2) Why, when, and how are psychodynamically- informed clinicians using somatic awareness and somatic interventions adapted from three similar somatic models (Somatic Experiencing®, Trauma Resiliency Model®, and Sensorimotor Approach®) in their treatment with traumatized individuals?

This study is being conducted as a research requirement for my social work doctoral degree as a partial fulfillment of my requirements for a PhD in Clinical Social Work. Beyond my dissertation, this research may also be published or presented at professional conferences.

Description of the Study Procedures

If you agree to be in this study, you will be asked to complete an online survey related to your clinical experience with adapting somatic awareness and somatic interventions(s) as an aspect of your psychodynamically informed clinical practice with traumatized individuals.

The survey will be approximately 10-15 minutes in length. The survey contains a short series of Likert scale type questions, multiple choice questions, yes/no survey questions, three open ended questions, and eight demographic questions.

Risks/Discomforts of Being in this Study

There are no reasonable foreseeable (or expected) risks related to participating in this study.

Benefits of Being in the Study

The benefits of participation are:

1. The opportunity to join with other colleagues to help gather clinical knowledge and expertise related to the psychodynamically informed treatment of traumatized individuals.
2. To be able to contribute your clinical practice experience to establish a basic understanding of how psychodynamically informed psychotherapy is adapting body-based somatic awareness and somatic interventions along-side advances in neuroscience, and contemporary traumatology.
3. To raise awareness in the clinical treatment profession about psychodynamic psychotherapy as an evidence based practice, and the potential revising of psychodynamic theory and practice through the synthesis of neurobiologically-informed somatic treatment methods with psychodynamic psychotherapy.

The benefits to social work/society are:

4. While the evidence base for psychodynamic psychotherapy is well established, the clinical efficacy of the use of body-oriented somatic awareness and somatic

interventions as part of psychodynamic practice has not yet been determined by research.

5. This study will contribute to the advancement of the literature related to the use of body-based somatic awareness and somatic interventions by psychodynamically informed clinicians.
6. Anecdotal evidence suggests that many psychodynamically informed clinicians are using body-based somatic awareness/somatic interventions as part of their treatment approach to help their patients/clients reduce trauma-related symptoms. This study will contribute knowledge about a treatment method being used with one of the most vulnerable populations that seek psychological services.

Confidentiality

Your participation in this dissertation survey will be kept confidential. The online site on which the survey is located is a password protected, secure and data encrypted site. We will also not ask you to identify yourself within the survey. It is your choice to leave your email if you wish to receive a copy of survey materials. Once the survey results are sent to you, we will delete your email from our survey records.

All research materials including survey results, data analyses and consent/assent documents will be stored in a secure location for three years according to federal regulations. In the event that materials are needed beyond this period, they will be kept secured until no longer needed, and then destroyed. All electronically stored data will be password protected during the storage period. We will not include any information in any report we may publish that would make it possible to identify you.

Payments/gift

You will not receive any financial payment for your participation.

Right to Refuse or Withdraw

The decision to participate in this study is entirely up to you. You may refuse to take part in the study *at any time* without affecting your relationship with the researcher of this study or Smith College. Your decision to refuse will not result in any loss of benefits (including access to services) to which you are otherwise entitled.

You have the right not to answer any single question, as well as to withdraw completely up to the point noted below. If you choose to withdraw, I will not use any of your information collected for this study. You must notify me of your decision to withdraw by email or phone at any time no later than 9/23/15. After that date, your information will be part of the dissertation study final analysis.

Right to Ask Questions and Report Concerns

You have the right to ask questions about this research study and to have those questions answered by me before, during or after the research. If you have any further questions about the study, at any time feel free to contact me, Mary P Curry, MSW, LISW, Doctoral Candidate, at mcurry@smith.edu or by telephone at 505-670-8797.

If you have any other concerns about your rights as a research participant, or if you have any problems as a result of your participation, you may contact the Chair of the Smith College School for Social Work Human Subjects Committee at (413) 585-7974. If you would like a summary of the study results please send a request to be notified of the study results to mcurry@smith.edu. For confidentiality purposes no identifying information can be included in this online survey form. A copy of the survey, one will be sent to you once the study is completed.

Consent

Your electronic signature below indicates that you have decided to volunteer as a research participant for this study, and that you have read and understood the information provided above. You will be given a signed and dated copy of this form to keep.

- After signing the informed consent you will be redirected back to the survey. This survey contains a brief clarification of terms, 12 multiple choice and Likert scale survey questions, three open-ended questions, and eight demographic questions. Your willingness to be a participate in this survey is appreciated, valued, and important to the many individuals seeking professional help to heal from the impact of traumatic event(s). You will be provided an option at the end of the survey to receive the results from this study. You will also be given the option to print out a copy of your signed informed consent. You may use your browser print function button to print this survey prior to signing and after signing.

Thank you!

- Name *
First Name Last Name

- Signature *
Signature

Use your mouse or finger to draw your signature above

Relevant Survey Terminology

- **Clarification of Survey Terms**

Psychodynamically informed:

Practice/treatment grounded in psychodynamic or psychoanalytic theory (Drive Metapsychology, Ego Psychology, Object Relations Psychotherapy, Self Psychology, Relational Psychotherapy, Intersubjective Psychotherapy, and Attachment Theory)

Traumatized Individual:

An individual who meets the DSM-5 diagnostic criteria for Posttraumatic Stress Disorder (PTSD), or other DSM-5 trauma-related disorders, or a person who meets the criteria for Complex Traumatic Stress Disorder, and/or a person who exhibits the symptoms associated with early relational trauma.

Traumatic Response: Ordinary complex psychological and physiological reactions to overwhelming events.

Body-Based Somatic Awareness: Conscious/deliberate self-awareness of ones own bodily sensations, and observations of patient/clients physiological responses/gestures during a therapeutic encounter.

Body-Based Somatic Intervention(s): Introducing/inviting an individual to use their self-awareness of bodily sensations to develop skill-based internal resources that support well-being, strengthen self-regulation, reduce physiological symptoms related to traumatic events, diminish the negative impact of traumatic memory, and improve relational interactions as a result of reducing involuntary traumatic response.

Survey Questions

- 1. Of the descriptions below, which best describes how you received your psychodynamic education and clinical training. (Check all that apply). *
 - Graduate school courses
 - Postgraduate psychodynamic/psychoanalytic institute or certificate program
 - CEU clinical training(s) in psychodynamic theory and practice
 - Psychodynamic clinical supervision, clinical internship, residency and or clinical training
 - Post-graduate psychodynamic clinical supervision and clinical training
 - Other:

Other means of acquiring psychodynamic knowledge and practice (e.g., Your own psychodynamic or psychoanalytic psychotherapy, study group, peer consultation group,etc.)

- 2. Have you studied or sought clinical training in any body-based somatic model/method? *
 - Yes (Continue to Question 3)
 - No (Skip to Question 14)

- 3. In which body-based somatic models/methods listed below do you have clinical training? *

- Somatic Experiencing® (SE)
- Trauma Resiliency Model® (TRM)
- Sensorimotor Psychotherapy®
- Other:

Other (please specify)

- 4. Why did you choose to learn a body-based somatic awareness approach to utilize in your treatment of traumatized individuals? (Check ALL that apply) *

- To offer patients/clients self-regulation or self-control skills
- To address limitations with a strictly talk therapy psychodynamic approach
- Due to professional or personal experience with a somatic body-based perspective to healing trauma
- Due to recognizing a need to include somatic body-based perspective in your treatment practice with traumatized individuals
- Other:

Other response or clarification

- 5. Which of the somatic intervention skills commonly taught in clinical trainings do you use in your treatment of traumatized individuals? (Check ALL skills/methods that apply) *

	Never	Rarely	Sometimes	Frequently	Always	Don't Know
Resourcing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Grounding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Observing/Tracking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use of Gestures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pendulation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Titration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- 6. In thinking about your clinical decision making, what are your main reasons for using somatic awareness/interventions? (Check ALL that apply) *

- As part of the initial stabilization stage of phased-based trauma treatment of a patient/client
- Patient/client appears to be experiencing moderate to severe trauma-related stress (e.g., affect dysregulation, dissociation, anxiety, etc.)
- To facilitate reprocessing traumatic memory within a psychodynamic perspective
- Patient/client has explicitly asked for help to develop skills to reduce physiological and psychological trauma-related distress
- Other:

- 7. What are your main reasons for using somatic awareness of your own bodily sensations during treatment session with a traumatized individual? (Check ALL that apply) *

- To strengthen your empathic attunement (e.g., awareness of ones own physiological distress informing the distress the patient/client may be experiencing)
- To assist in monitoring transference/countertransference awareness (projection, projective identification, etc.)
- For self-protection from vicarious trauma (e.g., staying grounded through body-awareness of ones own sensations in an effort to reduce the impact of hearing disturbing and or distressing description of traumatic event(s))
- To inform your psychodynamic perspective or intervention (e.g., environmental provision, holding environment, auxiliary ego, etc.)
- Other:

Other reason(s) for your use of bodily self-awareness:

- 8. Do you consider the use of somatic awareness/interventions to be congruent with your psychodynamic/psychoanalytic perspective? *

- Yes (Continue to Question 9)
- No (Skip to Question 11)

- 9. In what way do you consider the use of somatic awareness/interventions congruent with your psychodynamic/psychoanalytic perspective? (Check ALL that apply) *
 - As a psycho-educational way of normalizing response to traumatic events
 - As ego-supportive interventions (e.g., stabilization, increasing affect regulation)
 - As part of understanding and working with the phenomena of transference and countertransference in the therapeutic relationship
 - An additional way of recognizing or understanding conscious and unconscious internal conflicts/intrapersonal dynamics
 - As an embodied form of unconscious communication and traumatic re-enactment
 - As a way to enhance psychodynamic assessment and treatment
 - Other:

Other (Please identify)

- 10. In your clinical practice with traumatized individuals, how relevant is it to you that your use of somatic awareness/interventions be theoretically grounded with your psychodynamic perspective? *

	Extremely Irrelevant	Somewhat Irrelevant	Neither Relevant nor Irrelevant	Relevant	Extremely Relevant
Please choose one	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Open-Ended Survey Questions

- 11. In what way does your use of somatic awareness/interventions align with your understanding of psychodynamic theory and practice? *
- 12. What else may be important for you to share about your clinical experience regarding the use of somatic awareness/interventions as part of your psychodynamic treatment approach with traumatized individuals? Please share a de-identified, brief composite clinical example of a way you commonly use somatic awareness/intervention(s) in your practice. (You can copy and paste from a Word document) *

- 13. What, if any, are your concerns about using body-based somatic interventions with traumatized individuals? *
- 14. ONLY answer this question (Question 14) if you skipped from question (3). Please briefly describe your clinical orientation, and why, when and how you utilize neurobiologically informed interventions in your treatment approach with traumatized individuals. Please feel free to share a de-identified composite clinical example. (You can copy and paste from a Word document) *

Survey Demographics

- 15. Select the age group that represents your age. *
 - 25-35 years of age
 - 36-45 years of age
 - 46-55 years of age
 - 56-65 years of age
 - 66 years of age and older
- 16. What educational degrees do you hold? (Select ALL that apply) *
 - Master's Degree (Clinical Social Work, Master's in Psychology or Master's in Counseling)
 - PhD, EdD, PsyD, DSW
 - MD
- 17. In what field do you hold your highest degree? *
 - Clinical Social Work
 - Clinical Psychology
 - Clinical Education
 - Counseling

Psychiatry

Other:

Other (please specify)

• 18. Do you currently hold a clinical license? *

Yes

No

Used to hold a clinical license; now retired.

• 19. Identify the type of setting in which you current work (Identify all that apply) *

Private Solo Practice

Private Multi-Clinician Practice

Outpatient Setting-Public or private

Hospital Setting-Public or Private

Physical Health Setting-Public or Private

University Setting-Public or Private

Other:

Other (please specify)

20. If you are currently practicing as a licensed clinician, on average how many clients do you see a week? *

1-5 clients a week

6-10 clients a week

11-15 clients a week

16-20 clients a week

21-25 clients a week

More than 25 clients a week

Retired; No longer practicing

- 21. How many years have you been/ were you engaged in clinical practice? *
 One to Five years
 Six to Ten Years
 Eleven to Fifteen Years
 Sixteen to Twenty Years
 Twenty-One to Twenty Five Years
 More than Twenty-Five Years

- 22. What percentage of your patients/clients are diagnosed with PTSD or comorbid trauma-related disorder(s), Complex PTSD, or Early Relational Trauma? *
 Less than 10%
 10-25%
 26-50%
 51-75%
 76-90%
 More than 90%

Thank you so much for taking this survey! If you wish to receive a link to view the survey results (available in the future), please contact the researcher directly at mcurry@smith.edu.

Appendix F

Non-probability Sampling, Sample Size and Measurement Error

The formula below was used to help determine what size of a completed sample will be needed for this survey study. While this formula is intended for probability sampling, the link of probability sampling with “network sampling” and “natural randomization” establishes a rationale for applying this sampling formula as part of the strategy for this research project. Other factors that will also be considered are a.) How much sampling error can be tolerated within a given confidence interval, b.) The amount of confidence required to achieve adequate statistical strength in the estimates, c.) The variance of the population with respect to the characteristics of interest, and d.) Reaching the size of the population from which the sample is drawn (Christian, Dillman, & Smyth, 2009, p56).

Formula for Survey Sample for Dissertation

$$N_s = \frac{N_p (p) (1-p)}{(N_p - 1) (B/C)^2 + (p) (1-P)}$$

1. N_s =Sample Needed for Survey
2. N_p =Universe Population of Sample: **1500** Psycho-analytically informed psychotherapists
3. P =portion of the population expected to choose one answer or another: **(.5)**
4. B =Margin of Error: **05%**
5. C =z score associated with confidence level of 95%: **1.96**

The data entered for the survey sample analyses are provided below:

$$N_s = \frac{(1500) (.5) (1-.5)}{(1500-1) (.05/1.96)^2 + (.5) (1-.5)}$$

$$N_s = 306 \text{ participants}$$

Where s = The complete sample size needed for the desired level of precision. The size of the p

N_p = The size of the population

P = The portion of the population expected to choose one of the two response categories

B = Margin of error (i.e, half of the desire confidence interval width): $+.05 /- .05$.

$C=Z$ score associated with Confidence interval (1.96 corresponds to the 95% level).

Dillman, Smyth & Christian (2009) provide a table, “Completed sample sizes needed for various population sizes and characteristics at three confidence interval widths (i.e., margins of error” that utilized the above formula (p. 57).

Sampling error is inevitable with all survey research. Noting this, I believe it is necessary to be forthcoming with the limitations of my survey methods and the use of a margin of error formula with a non-probability sample and the survey techniques applied.

The use of a margin of error formula such as the formula applied within this paper is not without question. Survey sampling literature has documented that there are researcher that believe a margin of error (MOE) formula should not be applied to a non- probability sample (Dillman et al, 2009), while there are other researchers who state the contrary (Baker et al., 2013; Onwuegbuzie & Collins, 2007).

Appendix G

Internet Survey Invitation/Request to Participate in the Study

Dear Colleagues,

Please consider participating in this practice-based clinical research survey exploring the use of body-based somatic awareness, and somatic intervention techniques by clinicians (clinical social workers, psychologists, psychiatrists, counselors) in the treatment of patients/clients who suffer from trauma-related conditions.

Anecdotal evidence suggests that some clinicians are adapting, and utilizing body-based somatic awareness and somatic interventions in their treatment with individuals diagnosed with PTSD, Complex PTSD and/or other forms of trauma-related conditions.

Please help me to distribute this email/survey invitation by forwarding it your colleagues, and professional list serves. This survey is being distributed nationally and internationally. This research is being conducted for my doctorate degree at Smith College School For Social Work.

http://Clinician_Use_Of_Somatic_Interventions_Survey_MPCurry.formstack.com/forms/mpcurry_doctoral_survey

With appreciation,

Mary Curry, LCSW, Doctoral Candidate



Appendix H
Informed Consent

Consent to Participate in a Research Study
Smith College School for Social Work • Northampton, MA

.....
Title of Study: Clinicians' Use of Somatic Awareness Intervention in the Treatment of Trauma-Related Disorders

Investigator(s): Mary P. Curry, MSW, Doctoral Candidate, School for Social Work,
505.670.8797

.....
Introduction

You are being asked to participate in a research study on “Clinicians’ Use of Somatic Intervention in the Treatment of Trauma-Related Disorders”. You were selected as a possible participant because of your affiliation with professional groups known to include psychodynamically informed clinicians who may be using somatic awareness and somatic interventions in their treatment of individuals who have been traumatized. Please read this form and ask any questions that you may have before agreeing to be part of this study.

Purpose of Study

The primary purpose of this study is to have psychodynamically informed clinicians, such as you, contribute clinical knowledge and practice experience related to the utilization (or not) of somatic awareness and somatic interventions.

The study will address the following research questions:

- 1) Is there an increasing number of psychodynamically informed clinicians utilizing somatic awareness and somatic interventions *adapted* from one or more of three somatic models (Somatic Experiencing, Trauma Resiliency Model®, and Sensorimotor Psychotherapy®) in their treatment with individuals who have been traumatized?
- 2) Why, when, and how are psychodynamically- informed clinicians using somatic awareness and somatic interventions adapted from three similar somatic models (Somatic Experiencing, Trauma Resiliency Model®, and Sensorimotor Psychotherapy®) in their treatment with individuals who have been traumatized?

This study is being conducted as a research requirement for my social work doctoral degree as a partial fulfillment of my requirements for a PhD in Clinical Social Work. Beyond my dissertation, this research may also be published or presented at professional conferences.

Description of the Study Procedures

If you agree to be in this study, you will be asked to complete an online survey related to your clinical experience with adapting somatic awareness and somatic interventions(s) as an aspect of your psychodynamically informed clinical practice with individuals who have been traumatized.

The survey will be approximately 10-15 minutes in length. The survey contains a short series of Likert scale type questions, multiple choice questions, yes/no survey questions, three open ended questions, and eight demographic questions.

Risks/Discomforts of Being in this Study

There are no reasonable foreseeable (or expected) risks related to participating in this study.

Benefits of Being in the Study

The benefits of participation are:

- A. The opportunity to join with other colleagues to help gather clinical knowledge and expertise related to the psychodynamically informed treatment of individuals who have been traumatized.
- B. To be able to contribute your clinical practice experience to establish a basic understanding of how psychodynamically informed psychotherapy is adapting body-based somatic awareness and somatic interventions along-side advances in neuroscience, and contemporary traumatology.
- C. To raise awareness in the clinical treatment profession about psychodynamic psychotherapy as an evidence based practice, and the potential revising of psychodynamic theory and practice through the synthesis of neurobiologically- informed somatic treatment methods with psychodynamic psychotherapy.

The benefits to social work/society are:

- A. While the evidence base for psychodynamic psychotherapy is well established, the clinical efficacy of the use of body-oriented somatic awareness and somatic interventions as part of psychodynamic practice has not yet been determined by research.
- B. This study will contribute to the advancement of the literature related to the use of body-based somatic awareness and somatic interventions by psychodynamically informed clinicians.
- C. Anecdotal evidence suggests that many psychodynamically informed clinicians are using body-based somatic awareness/somatic interventions as part of their treatment approach to help their patients/clients reduce trauma-related symptoms. This study will contribute

knowledge about a treatment method being used with one of the most vulnerable populations that seek psychological services.

Confidentiality

Your participation in this dissertation survey will be kept confidential. The online site on which the survey is located is a password protected, secure and data encrypted site. We will also not ask you to identify yourself within the survey. It is your choice to leave your email if you wish to receive a copy of survey materials. Once the survey results are sent to you, we will delete your email from our survey records.

All research materials including survey results, data analyses and consent/assent documents will be stored in a secure location for three years according to federal regulations. In the event that materials are needed beyond this period, they will be kept secured until no longer needed, and then destroyed. All electronically stored data will be password protected during the storage period. We will not include any information in any report we may publish that would make it possible to identify you.

Payment/gift

You will not receive any financial payment for your participation.

Right to Refuse or Withdraw

The decision to participate in this study is entirely up to you. You may refuse to take part in the study *at any time* (up to April 1, 2015) without affecting your relationship with the researcher of this study or Smith College. Your decision to refuse will not result in any loss of benefits (including access to services) to which you are otherwise entitled.

You have the right not to answer any question, as well as withdraw completely up to the

point noted below. If you choose to withdraw, I will not use any of your information collected for this study. You must notify me of your decision to withdraw by email or phone by April 1, 2015. After that date, your information will be part of the dissertation study final analysis.

Right to Ask Questions and Report Concerns

You have the right to ask questions about this research study and to have those questions answered by me before, during or after the research. If you have any further questions about the study, at any time feel free to contact me, Mary P. Curry, MSW, LISW, Doctoral Candidate, at mcurry@smith.edu or by telephone at 505-670-8797.

If you have any other concerns about your rights as a research participant, or if you have any problems as a result of your participation, you may contact the Chair of the Smith College School for Social Work Human Subjects Committee at (413) 585-7974.

If you would like a summary of the study results please send a request to be notified of the study results to mcurry@smith.edu. For confidentiality purposes no identifying information can be included in this online survey form. A copy of the survey, one will be sent to you once the study is completed.

Consent

Your signature below indicates that you have decided to volunteer as a research participant for this study, and that you have read and understood the information provided above. You will be given a signed and dated copy of this form to keep.

.....

Name of Participant (print): _____

Signature of Participant: _____ Date: _____

Signature of Researcher(s): _____ Date: _____

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